ANTHEM®

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For almost twenty years, Sonic Frontiers International, and more recently, Anthem, have manufactured an award-winning lineup of high-end Power Amplifiers, Stereo Preamplifiers, Surround-Sound Processors, CD Players, CD Transports, and Digital-to-Analog Converters of the finest quality. Not long ago, we introduced a new line of products representing the *ultimate* in high-end audio/video equipment, and sold under the brand name Anthem® Statement.

We enjoy an enviable reputation for products that allow you to virtually "be there" every time you listen to your favorite piece of recorded music or experience the excitement of surround sound home theater.

Our reputation in analog and digital design is legendary and our products are sold on six continents and used at all levels of music and video reproduction. Europe 1, France's national radio station, uses three of our D/A converters atop the Eiffel Tower and NASA uses an Anthem® power amplifier for its Space Shuttle program in its testing laboratory in Key Largo, Florida. (Just a few of our more notable professional-use owners.)

Our original goal was to create a high-end product without a high-end price. Our success is reflected in a product lineup that continues to set new reference standards of performance regardless of price.

FIRST PLACE OVERALL! Anthem® has received this award three times in the inside track * Annual Dealer Survey.

*An annual independent nationwide survey of consumer electronics specialist retailers and custom installers.

"ANTHEM'S products are about as future-proof as they get."

"With a group of mad scientists stashed away in a building somewhere in Canada designing tomorrow's new technology, and a factory of dedicated employees working hard to build almost every piece by hand, Anthem is committed to their customers. Whether it's the availability of upgrades via software downloads from their website or the opportunity for owners of AVM 30s to ship their units back to Anthem to be upgraded to AVM 50 status, Anthem's products are about as future-proof as they get."

– Randall Smith, Home Theater & Sound

EASY COMMUNICATION

All Anthem® processors make communicating over home local area networks (LAN) very easy, and all are compatible with Crestron® and AMX™ (via RS-232 interface).

"FUTURE READY" – SOFTWARE UPDATES

What if an Anthem® A/V processor is upgraded in the future? No problem. Updating is as easy as 1-2-3. Connect your computer to the Internet. Then, go to our website: **www.anthemAV.com** for an AVM processor, or go to **www.statement.anthemAV.com** for a D2, and download the latest version of the software. Finally, connect your computer to the A/V processor and upload the new software. It takes only a few minutes to fully update your A/V processor with the latest operating system.

"FUTURE READY" – HARDWARE UPGRADES

Although no audio/video component can claim to be absolutely future proof, Anthem® has a proven track record when it comes to offering upgrades that keep our products at the leading edge. While upgrades of new technologies come at a cost, at Anthem® that cost will always be affordable. Customers can enjoy the vastly superior performance of any Anthem® A/V processor today, with confidence for tomorrow.

RAVE REVIEWS

"… as good as it gets … shockingly transparent … pinpoint specific … blueprint precise … hands down the finest controller I've ever tested … there is almost nothing the D2 can't do."

– Mathew Evert, AudioVideo Revolution

"Absolutely stellar … feats of near magic … performed beyond my wildest expectations."

– Jeff Van Dyne, Home Theater & Sound

"… a completely new approach … its high-definition video de-interlacing is superb—really sets this component apart … fully compatible with future Blu-ray and HD-DVD players … a secure investment at a time when consumers are worried about making an investment in something they might have to replace later due to changing technology."

– Kris Deering, Secrets of Home Theater and High Fidelity

"… FANTASTIC … sets a new standard of excellence."

– Brent Butterworth, Home Entertainment's The Robb Report

"… ultra-high performance … from audio with a capital 'A' we have arrived at video with a capital 'V'!"

– Alain Lévesque, Québec Audio Video

The Anthem® Statement D2 ushers in a new era of music and home theater performance. With the unparalleled flexibility you have come to expect from Anthem® processors, it provides the versatility *and* the adjustability you need to make all of your digital video components work together seamlessly. The results are spectacular.

Leading-edge video format conversion and processing unleash the full potential of your high-definition display. The improvement the D2's video processing brings to picture quality and picture clarity is astounding. While on lower resolution displays the improvements are dramatic, on the new generation of displays, picture quality is simply astonishing!

The D2 also boasts Anthem's proprietary built-in upsampler which converts the sample rates of all incoming digital signals to 192 kHz. In fact, the D2 is still the *only* preamplifier/processor to offer upsampling on all channels and all formats, including decoded Dolby® Digital and DTS® material, for significantly improved audio performance.

As a high-end whole-home entertainment center, the D2 is as much about distributed video as it is about distributed audio—allowing you to select and direct audio *and* video program material throughout your home.

Designed and manufactured in North America by Anthem, the D2 is truly the ultimate high-end statement—the final word in digital audio and digital video processing—about "as good as it gets."

For more details on the D2, including a comprehensive Design Overview, see pages 6, 7 and 8.

"... a dazzling video processor ... MIND-BLOWING SOUND QUALITY AND VIDEO PERFORMANCE ... does not disappoint at any level."

– Chris Martens, The Perfect Vision

"... OUTSTANDING ... normally, performance like this is reserved for flagship standalone video processors."

– Kris Deering, Secrets of Home Theater and High Fidelity

"AS GOOD AS IT GETS" WHEN IT COMES TO DIGITAL AUDIO AND DIGITAL VIDEO PROCESSING

BROADCAST-QUALITY DIGITAL VIDEO PROCESSING

(Also available in the AVM 50)

- Video Format Conversion—the Gennum VXP™ broadcast-quality digital image processor converts any SD or HD video standard to other video standards, up to 1920 x 1080p at 60 Hz.
- Dual video output configuration makes it easy to switch from one configuration to another.
- Superior image quality using per-pixel processing and motion-adaptive de-interlacing ensures optimal image sharpness and picture resolution.
- Dynamic directional interpolation eliminates jaggy artifacts found in traditional de-interlacing algorithms.
- Full film-mode detection for all SD and HD inputs.
- True 10-bit image processing for eye-catching natural imagery.
- Video transcoding allows S-Video and Component Video inputs to be digitally processed and enhanced, and then routed through the Component or HDMI™ outputs.
- Each source can be adjusted independently for best picture.

ENHANCED VIDEO PERFORMANCE

- Adjustable cropping
- Aspect ratio control
- Chroma bug filter
- Frame lock
- Gamma correction
- Adjustable noise reduction
- Adjustable detail enhancement
- Custom output resolution and timing via PC utility
- All on-screen displays are shown through HDMI™ and Component Video
- All functions are available for HD input

STATE-OF-THE-ART DIGITAL AUDIO PROCESSING

- The 24-Bit/192-kHz precision upsampler operates on all digital audio signals. The D2's DACs also incorporate 128X oversampling to increase the sample rate to 24.576 MHz, ensuring the best phase and frequency response possible. Measurable results reflect exceptionally flat frequency response and THD+N in the upper frequencies. This is up to twenty times lower than some of the best high-end outboard DACs, resulting in a much higher level of transparency for multichannel music and movies. Sonic performance is astounding. Smoother high-frequency response, superior detail, and better image focus—a far more transparent window on the original performance.
- Dual digital signal processing (DSP) engines, our own DSP design, uses two of the most powerful DSP engines in the industry: each is rated at 150-million instructions per second, providing enough processing power to handle even the most complex program material with matchless precision.
- Dual 3Mbit 8ns external cache memory is large enough to ensure that the DSP engines never run out of resources.
- An impressive résumé of superior-quality component parts:
  - Audio-grade film capacitors and operational amplifiers
  - Low-ESR electrolytic capacitors
  - Audio-grade signal-coupling capacitors
  - High-value (1,000 µF) ADC reference voltage decoupling capacitors for lowest possible THD+N below 1 kHz
- 4-layer hand-designed motherboard includes separate power- and groundplanes.
- Independent 6-layer DSP, A/D and D/A converter boards—A/D and D/A use separate analog and digital planes as well as separate power- and groundplanes for remarkably low noise.
- All critical signal paths are surrounded by groundplanes
- Super-efficient switching power supply:
  - Low-noise, low-emissions design
  - Multiple-synchronized dithered-frequency isolation stages ensure exceptionally quiet audio and video operation and excellent electromagnetic compatibility
  - Fourteen independently regulated output stages ensure optimal operating environment
- Individual low-jitter RS-485 line receivers on all digital inputs.
- Unparalleled analog-to-digital and digital-to-analog conversion eliminates noise in the 20 to 80-kHz frequency band thanks to the high quality of our ADC and DAC designs:

Analog-to-Digital Conversion (ADC):

- Capable of up to 24-bit x 192-kHz resolution
- Six stereo analog attenuators—one for each channel of the 6-channel input, promote greater dynamic range and an impressive reduction in distortion

Digital-to-Analog Conversion (DAC):

- Converters operate at their full 24-bit x 192-kHz resolution
- Switched-capacitor output filters significantly reduce the DAC's sensitivity to rapid fluctuations in bit rate
- The built-in state-of-the-art upsampler allows the DACs to run at the highest speed (192 kHz) regardless of the incoming digital bitstream, and with extremely low back ground noise up to almost 100 kHz
- High-accuracy clock generator (49.152 MHz, ±0.001%) eliminates the potential for errors in timing, thereby contributing to a significant reduction in the distortion common in D/A conversion

- Fully buffered audio/video inputs for minimum crosstalk
- State-of-the-art video switching circuitry is laid out on isolated, independent 2-layer glass-epoxy circuit boards
- Highest-precision thru-hole passive components

... AND FOR THE AUDIO PURIST

- Analog-Direct available on all inputs
- Tone Bypass removes Bass/Treble from signal path
- Balanced 2-channel XLR digital input for best digital signal
- True-Balanced™ 2-channel analog input for best analog signal
- True-Balanced™ analog outputs provide best noise rejection and purest signal transmission
- On-screen displays can be disabled removing their character generators from the video signal path

TEN HIGH-END COMPONENTS IN ONE:

- Preamplifier
- Broadcast-Quality Digital Video Processor
- Built-in 24-Bit/192-kHz Upsampler
- Analog-to-Digital Converter (ADC)
- Digital-to-Analog Converter (DAC)
- Surround-Sound Processor
- Highest-Quality HDTV Video Switcher
- Multiroom/Whole-House Entertainment Control Center with (4) Independent Signal Paths (Main, Zone 2, Zone 3, Record)
- AM/FM Tuner
- Headphone Preamplifier

INPUTS

- Auto Digital/Analog Input Switching (For Every Source)
- Built-In AM/FM Tuner with Stereo/High-Blend/Mono Setting (Memorized to each FM Preset)
- (4) HDMI™ Inputs (Assignable to Multiple Digital Sources)
- (7) Coaxial Digital Audio Inputs (Assignable to Multiple Digital Sources)
- (3) Toslink Digital Audio Inputs (Assignable to Multiple Digital Sources)
- (1) AES/EBU Digital Audio Input (Assignable to Multiple Digital Sources)
- Bit Rate/Sample Rate Status Indicator (Displays PCM, Dolby® Digital, DTS®)
- (7) Stereo S/E Analog Audio Inputs (DSP or Direct)
- (1) Stereo True-Balanced™ (XLR) Analog Audio Input (DSP or Direct)
- (1) Six-Channel S/E Audio Input (DSP or Direct)
- Source EQ (Independent for Each Source)
- (4) Component Video Inputs (Assignable to Multiple Sources)
- HDTV Video Switching (All formats up to 1080p)
- (7) S-Video Inputs (Assignable to Multiple Sources)
- (7) Composite Video Inputs (Assignable to Multiple Sources)

MAIN

- (10) True-Balanced™ (XLR) Analog Audio Outputs
- (10) S/E Analog Audio Outputs
- Second Center Channel Output (Parallel–Balanced and S/E)
- Second Subwoofer Output (Parallel–Balanced and S/E)
- (1) Stereo Headphone Output (Independent Volume/Bass/Treble/Balance Controls)
- (1) HDMI™ Output
- (2) Component Video Outputs
- (1) S-Video Output
- (1) Composite Video Output
- Mode Presets by Source (Assignable for Each Source)
- Simulcast Video+Audio Sources
- Lip-Sync Delay (For Each Source in half-ms increments)
- Main Sources – Copy to Other Paths
- On-Screen Display (Bypassable) of:
  - S-Video (including Zone 2)
  - Component Video
  - HDMI™
  - Setup Menu (including Zone 2, full screen)
  - Status (blended with picture)
  - Video Adjustment (blended with picture)
- Digitally Generated Test Patterns
- Selectable Setup Menu Background Color (Blue, Black, Magenta)
- Adjustable Mute Level
- Direct Remote Control Codes for Modes

6-CHANNEL ANALOG-DSP (MAIN)

(DVD-Audio/SACD)

- Selectable 44 kHz, 48 kHz, 88 kHz, 96 kHz
- Bass Management
- Time Alignment for Listener Position
- Bass/Treble
- Lip-Sync Delay
- THX®, Dolby® Pro Logic IIx, DTS® Neo:6 Post Processing
- Surrounds can be Rerouted to Rears (5.1 Output)
- Surrounds can be Copied to Rears (7.1 Output)
- 2-Channel Stereo Downmix (Headphone, Zone 2, Zone 3, Record)

SURROUND MODES (MAIN)

- AnthemLogic–Music™ (No Center Channel)
- AnthemLogic–Cinema™ (Up to 7.1)
- Dolby® Pro Logic IIx Music (with Adjustments)
- Dolby® Pro Logic IIx Movie
- Dolby® Pro Logic IIx Matrix
- Dolby® Pro Logic IIx
- Dolby® Pro Logic
- DTS® Neo:6 Music (Center Image Adjustment)
- DTS® Neo:6 Cinema
- All-Channel Stereo (Up to 7.1)
- Mono
- Mono-Academy
- All-Channel Mono
- Individual Speaker Levels Memorized for Each Mode

5.1/6.1 MODES (MAIN)

- Dolby® Digital 5.1
- Dolby® Digital EX™
- DTS® 5.1
- DTS® ES Matrix
- DTS® ES Discrete
- DTS® 96/24 with full bass management
- DTS® 2-Channel Stereo Downmix (For Headphone, Zone 2, Zone 3, Record)
- Dynamics Adjustment (Dolby® Digital and DTS®)
- Dynamics Reset to Normal at Power Off
- Individual Speaker Levels Memorized for Each Mode

THX® MODES (MAIN)

- THX® Cinema
- THX® Ultra2™ Cinema
- THX® MusicMode
- THX® Surround EX™
- THX® Games Mode
- THX® ReEQ: On/Off (Can be applied even when THX® is Off)

BASS MANAGEMENT (MAIN)

- Independent Cinema and Music Speaker Configurations (Assignable to Each Source)
- Auto-LFE Option (For Cinema or Music Configuration)
- Dipole Setting for Surround/Rear
- Center Channel EQ
- Room Resonance Filter
- THX® Boundary Gain Compensation
- Super Subwoofer Setting (Subwoofer Operates when Fronts are Set to Large)
- Cinema and Music Configurations each include:
  - Independent Crossovers by Speaker Group (5-Hz Steps)
  - Independent Crossover for Subwoofer (5-Hz Steps)
  - Subwoofer Variable Phase/Subwoofer Polarity
  - LFE Crossover Bypass

ZONE 2

- (1) Stereo S/E Analog Audio Output
- (1) Stereo True-Balanced™ (XLR) Audio Output
- Variable or Fixed Volume Level Setting
- Adjustable Maximum Volume Setting
- Bass, Treble, Balance Controls
- (1) S-Video Output
- (1) Composite Video Output
- Component Video Output Control (Allows second set of Component Video outputs to be used for HD video switching of sources output to Zone 2)
- Simultaneous S-Video and Composite Outputs
- Simulcast Video+Audio Sources
- On-Screen Display (Bypassable)
- On-Screen Setup Menu

ZONE 3

- (1) Stereo S/E Analog Audio Output
- Variable or Fixed Volume Level Setting
- Adjustable Maximum Volume Setting
- Bass, Treble, Balance Controls
- (1) S-Video Output
- (1) Composite Video Output
- Simultaneous S-Video and Composite Outputs
- Simulcast Video+Audio Sources

RECORD

- Tape Record Out: (1) Stereo S/E, (1) S-Video, (1) Composite
- VCR Record Out: (1) Stereo S/E, (1) S-Video, (1) Composite
- (2) Coaxial Digital Record Outputs (Independent)
- Analog-In to Digital-Out (Selectable 16-bit/44 kHz, 16-bit/48 kHz, 24-bit/88 kHz, 24-bit/96 kHz)
- Dithered Output for 16-bit Recording

CUSTOM INSTALLATION

- (2) 50-mA Trigger Outputs
- (1) 200-mA Trigger Output
- (3) Powered IR Receivers
- (2) IR Emitters
- RS-232 Communication/Internet Upgradeability
- RS-232 Crestron® and AMX™ Compatible
- Front-Panel Lockout Option
- User Settings Save Function
- Installer Settings Save Function
- Setup Menu Lockout
- Wake-Up/Shut-Off Timers (Main, Zone 2, Zone 3)
- On/Off Skip Timers (Main, Zone 2, Zone 3)
- Sleep Timers (Main, Zone 2, Zone 3)

UPGRADEABILITY

- Hardware Upgradeable
- Easy (no charge) Website Software Upgradeability

ADDITIONAL

- Universal Learning Back-Lit Remote Control
- Power Failure/Overheating Text Warning
- Advanced Hardware Framework (Allows longer cables to be driven without degrading or losing the signal, and provides support for 1080p/60 Hz)
- Warranty: 3 years on Audio; 2 years on Video; 1 year on Remote Control unit

"THIS IS AUDIO AT ITS FINEST.
Run, don't walk to your nearest Anthem Dealer."

– Gary Altunian, The Perfect Vision

RAVE REVIEWS

"… multichannel audio of the highest order … sound was big and bold … immediate and real … totally enveloping … incredibly tight and defined … bass notes were powerful, seeming to reach down lower than I had ever heard … razor-sharp imaging, dynamics, and all the other hallmarks of a true high-end amplifier … a level of performance far beyond what is normally available at this price."

– Roger Kanno, Home Theater & Sound on the P5

"The P5 has a tendendy to leave you somewhat speechless … such enormous performance and value for the dollar that it has to be auditioned … Anthem has totally hit a home run."

– Manoj Motwani, HDTVetc.

"The P2 rules … beautiful power … incisive … crisp and articulate … exceptionally neutral … delivering the subtleties, nuances and harmonic delicacies — without editorializing … seriously slamming bass … set to redefine the concept of value in the audiophile world."

– Jason Thorpe, SoundStage!

PERFORMANCE FROM THE HEART

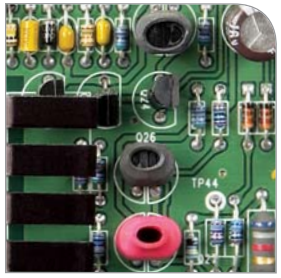
In life we admire "heart." When we say someone has heart we mean passion, spirit, fortitude. And we applaud it. While the amplifier is the brawn behind every successful music and movie presentation, it is also the heart! Its role is as crucial as that of the speakers in its ability to render delicate musical detail one moment and deliver room-shaking explosions the next. The most exquisite piece of music falls flat without clean, quiet power to sustain it through to its natural, musical ebb. Movie special effects require an inordinate supply of stable, high-current power to give visceral credibility to the "special" aspect of each effect! In fact, all truly successful sound reproduction requires "heart."

The heart of an amplifier rests with its design and it is here that P2 and P5 amplifiers reveal their high-end lineage: multi-layered, hand-designed circuit boards with thick copper traces; rugged, independent power supplies with tuned toroidal power transformers for each amplifier channel; fourteen rugged bipolar output devices per channel; custom-designed convection-cooled heatsinks with serrated fins; a "no-fuse" design strategy. And the list goes on.

EDGE-OF-THE-ART MULTI-MONO DESIGN

By design, P2 and P5 amplifiers are powerful independent "monoblock" amplifiers. Each channel is self-contained on its own glass-epoxy circuit board and heatsink and benefits from an independent power supply. Since there is no common audio path between channels there is a complete absence of crosstalk.

Frequency-response channel matching is superb. The musical picture is seamless and exquisitely detailed with a multichannel soundstage that is astonishingly transparent, cohesive and three dimensional.



CASCODED COMPLEMENTARY FEEDBACK INPUT STAGE

P2 and P5 amplifiers benefit from our proprietary input topology—a unique departure from the classical differential input stage. Eight low-noise bipolar input devices, hand-matched for superior balance, are configured in a complementary active-load cascoded feedback arrangement. Heat shrink tubing applied around each critical input pair ensures superior thermal tracking.

Designed to reduce distortion, this arrangement not only ensures exceptionally linear response, but also superior bandwidth and superb amplifier reliability.

INDEPENDENT POWER SUPPLIES

P Series amplifiers are the cleanest, quietest amplifiers in the industry. Each amplifier channel features two separate and autonomous power supplies fed from separate transformer windings. The amplifiers are thus able to deliver stable, continuous power at maximum output, regardless of the number of channels being driven.

While some amplifiers tend to oscillate when driving lower impedance loads, the P2 and P5 remain perfectly stable under all conditions. If pushed into clipping, the proprietary anti-saturation tracking power supply circuit takes over to ensure a seamless recovery.

Since the use of a regulated power supply in the driver stage removes noise emitted by the bridge rectifier (often heard as an audible hum at 120 Hz and its harmonics), the P2 and P5 achieve an utterly silent noise floor.

Q 125 dB

MASSIVE TOROIDAL TRANSFORMERS

Conservatively rated, in a low-profile design, these low-impedance toroidal power supplies—one per amplifier channel—make no sacrifices when it comes to delivering a continuous supply of pure, clean low-noise power.

They are shaped to minimize hum while a sequence-controlled soft turn-on significantly reduces power line transients and in-rush current during start up, thereby preventing accidental tripping of the circuit breakers.

FOURTEEN BIPOLAR OUTPUT DEVICES PER CHANNEL

An amplifier's ultimate performance is directly related to the number of high-quality, high-current devices used in the output stage. The greater the number of devices employed per channel, the greater the available power to deliver the crescendos in music and the thunder and explosions in movies. And the greater the amount of current that can be held in reserve.

While some manufacturers cut corners to save costs in this area, our designers incorporated fourteen bipolar output devices per channel. This results in tremendous current held in reserve.

HAND-DESIGNED CIRCUIT BOARDS

Our two-layer military-spec (FR-4-rated) glass-epoxy circuit boards feature plated through-holes and 2-ounce copper traces, promoting excellent conductivity.

Extensive use of power- and groundplanes ensures exceptionally low noise and increased protection from stray electromagnetic energy—internally as well as externally from other devices.

"NO FUSE" DESIGN

P2 and P5 amplifiers are Direct-Connected™ to the power supply capacitor bank. This keeps output impedance remarkably low while making more power available to the amplifier. Even when driving lower- or complex-impedance loads, the result is audibly superior performance. If an output short circuit does occur, only the AC line breaker will trip—there are no fuses to replace.

The standby low-power supply is protected by self-resetting Positive Temperature Coefficent thermistors (PTCs). Once the condition that tripped the PTC disappears, the circuit restores itself automatically.

OVERSIZE GOLD-PLATED BINDING POSTS

Our custom-designed binding posts are easy to use, ensure full power delivery at all times and facilitate large speaker cable connectors.

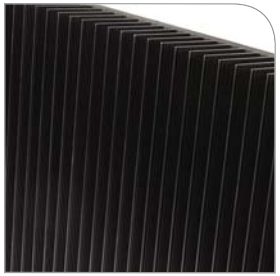
THREE POWER ON/OFF OPTIONS

P2 and P5 amplifiers can be powered On/Off three ways:

1. Manually, with the On/Off switch on the front panel.
2. Remotely, via the 12-volt trigger input on the rear panel.
3. Automatically, with our patented Auto-On/Off circuit. Auto-On turns the amplifier on when it senses an input signal and turns off 20 minutes after the input signal ends.

RCA AND XLR TRUE-BALANCED™ INPUTS

A three-way switch on the amplifier's rear panel offers an RCA input, a professional quality XLR balanced input and an attenuated XLR balanced connection (for preamplifiers that require it). Gold-plated female RCA jacks and gold-plated XLR balanced connections provide the highest-quality input connections.



OVERSIZE ALUMINUM HEATSINKS

With more than 1125 square inches (7258cm²) of computer modeled heatsink (including large serrated fins) per channel, P2 and P5 amplifiers are superbly equipped to dissipate the heat generated by their high power levels. This, in turn, eliminates the need for noise-inducing cooling fans. A thermal sensor on each heatsink continuously monitors safe operating temperature.

DESIGNED AND BUILT IN NORTH AMERICA

Fine-grain brushed aluminum cover and extruded aluminum handles. Heavy-gauge, low-resonance 12-awg steel chassis and oversize aluminum heatsinks generate serious high-end weight and authority.

IEC AC female sockets and detachable high-power, high-quality 14-awg AC power cords.

Can be ordered with rack-mount handles. (See Dealer for more information.)

"GORGEOUS PIECES OF INDUSTRIAL DESIGN ...
tube-like smoothness ... magnificent, full bodied and with great depth ..."

– Roger Kanno, Home Theater & Sound

RAVE REVIEWS

"… phenomenal … completely transparent in their delivery … synergy between the Anthem amps and the speakers was incredible … effortless and very convincing … every nuance is presented wonderfully—at blistering levels … never showed any signs of running out of steam …"

– Kris Deering, Secrets of Home Theater and High Fidelity on the A2/A5

"… incredibly versatile and rock solid … I was never even close to pushing the amp to its limits, while the sound was still clean and precise … performed flawlessly … amazing clarity and immediacy … as the bullets seemingly flew around my living room and explosions were shaking my walls—I was in no danger of running out of gas."

– Bryan Dailey, AudioVideo Revolution on the A5

"… dead quiet and completely imperturbable … solid as a block of steel … sound was pure and convincing … everything was rich and burnished within that deep soundstage … percussive leading edges and delicate trailing sounds—reproduced beautifully … steady and unruffled while conveying the full power … a bargain at the price and highly recommended."

– Wes Marshall, Home Theater & Sound on the A5

MULTI-TALENTED PERFORMERS

Like their larger and even more powerful siblings, A2 and A5 amplifiers are muscular in character and musical by nature. They are multi-talented performers more than capable of supplying the power behind the sonically demanding aspects of surround-sound home theater, or recreating, with remarkable finesse and transparency, the 'immediacy' of a live music performance. The secret behind their award-winning performance can be found in Anthem's unwavering commitment to state-of-the-art design.

A2 and A5 amplifiers boast: completely modular construction; a four-layer circuit board topology; mirror-imaged, frequency-response channel matching; eight bipolar output devices per channel; hand-matched complementary input devices; massive toroidal power supplies; oversize convection-cooled aluminum heatsinks; and a no-fuse design strategy.

"NO FUSE" DESIGN

A2 and A5 amplifiers are Direct-Connected™ to the power supply capacitor bank, keeping output impedance remarkably low while making more power available to the amplifier. Even when the amplifiers are driving lower- or complex-impedance loads, the result is audibly superior performance. If an output short circuit does occur, only the AC line breaker will trip—there are no fuses to replace.

The standby low-power supply is protected by self-resetting Positive Temperature Coefficent thermistors (PTCs). Once the condition that tripped the PTC disappears, the circuit restores itself automatically.

HAND-MATCHED COMPLEMENTARY INPUT DEVICES

Heat shrink tubing applied around each critical pair of hand-matched complementary input devices ensures superior thermal tracking and lower voltage offset and distortion.

MASSIVE OVERSIZE POWER SUPPLY RESERVOIRS

To store all of the energy required for the immense bursts of power required in movie special effects or the taxing crescendos in music, large banks of capacitors are required.

A2 and A5 amplifiers employ 30,000 micro farads (µF) of capacitance per amplifier channel. (That's 150,000 µf alone in the A5!) With so many joules of power in reserve, these amplifiers are able to instantly and effortlessly deliver full, uninterrupted bursts of power.

OVERSIZE OUTPUT CONNECTIONS

Custom-designed oversize gold-plated binding posts ensure full power delivery at all times. They're easy to use while facilitating large speaker cable connectors.

OVERSIZE CONVECTION-COOLED HEATSINKS/FINS

Computer-designed and modeled to maximize contact area for exceptional heat transfer, these amplifiers run cooler for greater reliability without the need for a noise-inducing fan.

DESIGNED AND BUILT IN NORTH AMERICA

Heavy-gauge 14-awg steel chassis with fine-grain brushed aluminum cover and extruded aluminum handles.

Includes IEC detachable AC female sockets and high-power, high-quality 14-awg AC cords.

Can be ordered with rack-mount handles. (See Dealer for more information.)

EIGHT BIPOLAR OUTPUT DEVICES PER CHANNEL

Solid-state amplifiers get their power from the output devices used in the amplification stage—the greater the number of devices per channel, the greater the available high-current power for the crescendos in music or the thrills, thunder and explosions in movies. Performance is simply more effortless. It also means that the amplifiers run cooler, making them more reliable. A2 and A5 amplifiers each have eight bipolar output devices per channel ensuring tremendous current reserves and outstanding reliability.

FOUR-LAYER CIRCUIT BOARDS

Our hand-designed four-layer military spec (FR-4-rated) glass-epoxy circuit boards with plated through-holes makes extensive use of groundplanes to ensure excellent separation between amplifier channels. The result is exceptionally low noise and low crosstalk between channels, as well as between inputs. This multi-layered design also offers increased protection from electrostatic discharge.

STATE-OF-THE-ART MODULAR DESIGN

A2 and A5 amplifiers reflect the benefit of a common modular design enhanced by our highly refined amplifier circuit topology. Each amplifier channel is self-contained on its own board and heatsink. In the rare event that servicing is required, it can be done quickly and easily by a qualified technician, minimizing the down time of your system.

120 dB SIGNAL-TO-NOISE RATIO

Transformer-induced noise at the bass frequencies of 60 Hz, 120 Hz, and 180 Hz has effectively been eliminated. As a result, A2 and A5 amplifiers boast vanishing noise and remarkably low levels of Total Harmonic Distortion. The reproduction of subtle harmonic structures in each of these powerful amplifiers reveals extraordinary spatial ambience and soundstage dimension.

ULTRA-QUIET TOROIDAL POWER SUPPLY

Thanks to massive conservatively rated toroidal power supplies designed with high rail voltages, A2 and A5 multichannel amplifiers provide ultra-quiet performance. Transformers are shaped to minimize stray electro-magnetic radiation and tuned to minimize hum.

REFERENCE-QUALITY INPUT CONNECTION

Gold-plated female RCA jacks on the A2 and A5 provide a high-quality input connection. True-Balanced™ XLR connections ensure the lowest level of noise and hum possible.

Our unique auto-sensing technology means no switches. Just plug in either the RCA or XLR connector and our auto-sensing technology will automatically select the right input.

POWER ON/OFF THREE WAYS

A2 and A5 amplifiers can be powered On/Off three ways:

1. Manually, with the On/Off switch on the front panel.
2. Remotely, via the 12-volt trigger input on the rear.
3. Automatically, with our patented Auto-On/Off circuit—an incoming audio signal immediately switches it on, and approximately 20 minutes after the audio signal ends, it simply switches off.

There's an Anthem® AVM to meet every audio/video need.

AVM 30:

SOUND & VISION CALLS IT "IRRESISTIBLE"

One of the most successful surround-sound processors in the marketplace … includes analog video switching.

AVM 40:

ANALOG-TO-DIGITAL VIDEO TRANSCODING

All of the critically acclaimed features in the AVM 30 plus …

- 4 HDMI™ inputs and 1 output
- State-of-the-art analog-to-digital video transcoding allowing S-Video and Component Video inputs to be digitally processed and enhanced, then routed through HDMI™ outputs
- Zone 2 Component Video Output Control
- Macrovision Support allowing VCR tapes to be processed and then output through HDMI™.

AVM 50:

BROADCAST-QUALITY DIGITAL VIDEO PROCESSING

All the features of the AVM 40 plus digital video processing. Just like the D2, the improvement the AVM 50 brings to DVD picture quality is astounding, almost as remarkable as the clarity it brings to HD material. On lower-resolution displays, improvements are dramatic, but on the newer displays, picture quality is astonishing. In the hands of the AVM 50, even Component Video looks better.

The following pages offer a complete overview of all AVM models.

THE AUDIO/VIDEO MASTERS

Stunning two-channel/multichannel sound and the world's most complete (and affordable) high-end multizone controllers put the full audio/video experience in your hands. Designed and built in North America, the AVM 30, 40 and 50 operate on the same award-winning platform as their more expensive sibling, the Anthem® Statement D2.

Anthem's AVMs are first of all, state-of-the-art music preamplifier/home theater processors with built in tuners and independent source selection for recording. They're also high-end whole-home entertainment control centers, with a whole-home focus as much about distributed video as about distributed audio. This makes it possible for you to select and direct audio and video program material throughout your home.

Since the introduction of the first Audio Video Master, the AVM 2, a number of years ago, Anthem's AVMs have consistently been singled out as the best affordable high-end preamp/processors, not only in their class, but when compared to far more expensive preamp/processors available on the market.

The synopsis above will give you an idea of the features each AVM model offers, however, the full story can be found in the following pages.

"... SOUNDED FANTASTIC ... a serious bunch of video goodies ... completely solid and film-like ... among the best, if not THE best, for the money."

– Al Griffin, Sound & Vision on the AVM 50

"A COMPLETE VIDEO PROCESSING SOLUTION

... more in line with what you see in outboard video processors."

– Kris Deering, Secrets of Home Theater and High Fidelity on Anthem's video processing

WHY ANTHEM'S AVM 30, 40 AND 50 ARE THE BEST-SELLING PREAMPLIFIER/PROCESSORS IN THEIR CLASS

BROADCAST-QUALITY DIGITAL VIDEO PROCESSING IN THE AVM 50

- Video Format Conversion—the Gennum VXP™ broadcast-quality digital image processor converts any SD or HD video standard to other video standards, up to 1920 x 1080p at 60 Hz.
- Dual video output configuration makes it easy to switch from one configuration to another.
- Superior image quality using per-pixel processing and motion-adaptive de-interlacing to ensure optimal image sharpness and picture resolution.
- Dynamic directional interpolation eliminates jaggy artifacts found in traditional de-interlacing algorithms.
- Full film-mode detection for all SD and HD inputs.
- True 10-bit image processing for eye-catching natural imagery.
- Video transcoding allows S-Video and Component Video inputs to be digitally processed and enhanced, and then routed through the Component or HDMI™ outputs.
- Each source can be adjusted independently for best picture.

ESPECIALLY FOR ENHANCED VIDEO PERFORMANCE IN THE AVM 50

- Adjustable cropping
- Aspect ratio control
- Chroma bug filter
- Frame lock
- Gamma correction
- Adjustable noise reduction
- Adjustable detail enhancement
- Custom output resolution and timing via PC utility
- All on-screen displays are shown through HDMI™ and Component Video
- All functions are available for HD input

WHAT'S UNDER THE AVM HOOD

(All models)

- Component parts are carefully chosen for their ability to maintain the lowest possible total harmonic distortion and noise (THD + N)
- Handcrafted circuit board layouts (not done by auto-routers) with extensive use of groundplanes achieve exceptionally low noise, low crosstalk, and protect against electrostatic discharge.
- 4-layer hand-designed motherboard with separate power- and groundplanes.
- 6-layer DSP, A/D and D/A boards. A/D and D/A converter boards use separate analog and digital planes, as well as separate power- and groundplanes.
- All critical signal paths are surrounded by groundplanes
- Super-efficient switching power supply:
  - Low-noise, low-emissions design
  - Multiple-synchronized dithered-frequency isolation stages ensure exceptionally quiet audio and video operation and excellent electromagnetic compatibility
  - Fourteen independently regulated output stages ensure optimal operating environment
- Our own precision digital signal processing design using one of the most powerful DSP engines in the industry: rated at 150 million instructions per second.
- Individual low-jitter RS-485 line receivers on all digital inputs
- Superior Analog-to-Digital/Digital-to-Analog conversion:
  - A/D capable of up to 24-bit x 96-kHz resolution
  - D/A operates at full 24-bit x 192-kHz resolution
- Audio-grade film capacitors and operational amplifiers
- Superior-quality analog attenuator (volume control)
- Fully buffered audio and video inputs for minimum crosstalk
- Highest-quality video-switching circuitry on completely independent and isolated circuit boards.
- High-precision thru-hole passive components
- Heavy-gauge non-resonant chassis
- Headphone amplifier features a high-current/voltage design with a dedicated fully discrete output stage.

... AND FOR THE AUDIO PURIST

- Analog-Direct available on all inputs
- Tone Bypass removes Bass/Treble from signal path
- Balanced 2-channel XLR digital input for best digital signal
- True-Balanced™ 2-channel analog input for best analog signal
- True-Balanced™ analog outputs provide best noise rejection and purest signal transmission
- On-screen displays can be disabled removing their character generators from the video signal path

MULTIPLE HIGH-END COMPONENTS IN ONE:

- Preamplifier
- Broadcast-Quality Digital Video Processor (AVM 50)
- Analog-to-Digital Converter (ADC)
- Digital-to-Analog Converter (DAC)
- Surround-Sound Processor
- Highest-Quality HDTV Video Switcher
- Multiroom/Whole-House Entertainment Control Center with (4) Independent Signal Paths (Main, Zone 2, Zone 3, Record)
- AM/FM Tuner
- Headphone Preamplifier

INPUTS

- Auto Digital/Analog Input Switching (For Every Source)
- Built-In AM/FM Tuner with Stereo/High-Blend/Mono Setting (Memorized to each FM Preset)
- (4) HDMI™ Inputs up to 1080p/60 Hz (AVM 40/50) (Assignable to Multiple Digital Sources)
- (7) Coaxial Digital Audio Inputs (Assignable to Multiple Digital Sources)
- (3) Toslink Digital Audio Inputs (Assignable to Multiple Digital Sources)
- (1) AES/EBU Digital Audio Input (Assignable to Multiple Digital Sources)
- Bit Rate/Sample Rate Status Indicator (Displays PCM, Dolby® Digital, DTS®)
- (7) Stereo S/E Analog Audio Inputs (DSP or Direct)
- (1) Stereo True-Balanced™ (XLR) Analog Audio Input (DSP or Direct)
- (1) Six-Channel S/E Audio Input (DSP or Direct)
- Source EQ (Independent for Each Source)
- (4) Component Video Inputs (Assignable to Multiple Sources)
- HDTV Video Switching (All formats up to 1080p)
- (7) S-Video Inputs (Assignable to Multiple Sources)
- (7) Composite Video Inputs (Assignable to Multiple Sources)

MAIN

- (10) True-Balanced™ (XLR) Analog Audio Outputs
- (10) S/E Analog Audio Outputs
- Second Center Channel Output (Parallel–Balanced and S/E)
- Second Subwoofer Output (Parallel–Balanced and S/E)
- (1) Stereo Headphone Output (Independent Volume/Bass/Treble/Balance Controls)
- (1) HDMI™ Output (AVM 40/50)
- (1) S-Video Output
- (1) Composite Video Output
- Mode Presets by Source (Assignable for Each Source)
- Simulcast Video+Audio Sources
- Lip-Sync Delay (For Each Source in half-ms increments)
- Main Sources – Copy to Other Paths
- On-Screen Display (Bypassable) of:
  - S-Video (including Zone 2)
  - Component Video (AVM 50)
  - HDMI™ (AVM 50, and AVM 40 on 480i output only)
  - Setup Menu (including Zone 2, full screen)
  - Status (blended with picture)
  - Video Adjustment (blended with with picture) (AVM 50)
- Digitally Generated Video Test Patterns (AVM 50)
- Selectable Setup Menu Background Color (Blue, Black, Magenta)
- Adjustable Mute Level
- Direct Remote Control Codes for Modes

6-CHANNEL ANALOG-DSP (MAIN)

(DVD-Audio/SACD)

- Selectable 44 kHz, 48 kHz, 88 kHz, 96 kHz
- Bass Management
- Time Alignment for Listener Position
- Bass/Treble
- Lip-Sync Delay
- THX®, Dolby® Pro Logic IIx, DTS® Neo:6 Post Processing
- Surrounds can be Rerouted to Rears (5.1 Output)
- Surrounds can be Copied to Rears (7.1 Output)
- 2-Channel Stereo Downmix (For Headphone, Zone 2, Zone 3, Record)

SURROUND MODES (MAIN)

- AnthemLogic–Music™ (No Center Channel)
- AnthemLogic–Cinema™ (Up to 7.1)
- Dolby® Pro Logic IIx Music (with Adjustments)
- Dolby® Pro Logic IIx Movie
- Dolby® Pro Logic IIx Matrix
- Dolby® Pro Logic IIx Game
- Dolby® Pro Logic
- DTS® Neo:6 Music (Center Image Adjustment)
- DTS® Neo:6 Cinema
- All-Channel Stereo (Up to 7.1)
- Mono
- Mono-Academy
- All-Channel Mono
- Individual Speaker Levels Memorized for Each Mode

5.1/6.1 MODES (MAIN)

- Dolby® Digital 5.1
- Dolby® Digital EX™
- DTS® 5.1
- DTS® ES Matrix
- DTS® ES Discrete
- DTS® 96/24 with full bass management
- DTS® 2-Channel Stereo Downmix (For Headphone, Zone 2, Zone 3, Record)
- Dynamics Adjustment (Dolby® Digital and DTS®)
- Dynamics Reset to Normal at Power Off
- Individual Speaker Levels Memorized for Each Mode

THX® MODES (MAIN)

- THX® Cinema
- THX® Ultra2™ Cinema
- THX® MusicMode
- THX® Surround EX™
- THX® Games Mode
- THX® ReEQ: On/Off (Can be applied even when THX® is Off)

BASS MANAGEMENT (MAIN)

- Independent Cinema and Music Speaker Configurations (Assignable to Each Source)
- Auto-LFE Option (For Cinema or Music Configuration)
- Dipole Setting for Surround/Rear
- Center Channel EQ
- Room Resonance Filter

BASS MANAGEMENT (MAIN) (continued)

- THX® Boundary Gain Compensation
- Super Subwoofer Setting
  (Subwoofer Operates when Fronts are Set to Large)
- Cinema and Music Configurations each include:
  - Independent Crossovers by Speaker Group (5-Hz Steps)
  - Independent Crossover for Subwoofer (5-Hz Steps)
  - Subwoofer Variable Phase
  - Subwoofer Polarity
  - LFE Crossover Bypass

ZONE 2

- (1) Stereo S/E Analog Audio Output
- (1) Stereo True-Balanced™ (XLR) Audio Output
- Variable or Fixed Volume Level Setting
- Adjustable Maximum Volume Setting
- Bass, Treble, Balance Controls
- (1) S-Video Output
- (1) Composite Video Output
- Component Video Output Control (Allows second set of Component Video outputs to be used for HD video switching of sources output to Zone 2) (AVM 40/50)
- Simultaneous S-Video and Composite Outputs
- Simulcast Video+Audio Sources
- On-Screen Display (Bypassable)
- On-Screen Setup Menu

ZONE 3

- (1) Stereo S/E Analog Audio Output
- Variable or Fixed Volume Level Setting
- Adjustable Maximum Volume Setting
- Bass, Treble, Balance Controls
- (1) S-Video Output
- (1) Composite Video Output
- Simultaneous S-Video and Composite Outputs
- Simulcast Video+Audio Sources

RECORD

- Tape Record Out: (1) Stereo S/E, (1) S-Video, (1) Composite
- VCR Record Out: (1) Stereo S/E, (1) S-Video, (1) Composite
- (2) Coaxial Digital Record Outputs (Independent)
- Analog-In to Digital-Out (Selectable 16-bit/44 kHz, 16-bit/48 kHz, 24-bit/88 kHz, 24-bit/96 kHz)
- Dithered Output for 16-bit Recording

CUSTOM INSTALLATION

- (2) 50-mA Trigger Outputs
- (1) 200-mA Trigger Output
- (3) Powered IR Receivers
- (2) IR Emitters
- RS-232 Communication/Internet Upgradeability
- RS-232 Crestron® and AMX™ Compatible
- Front-Panel Lockout Option

CUSTOM INSTALLATION (continued)

- User Settings Save Function
- Installer Settings Save Function
- Setup Menu Lockout
- Wake-Up/Shut-Off Timers
  (Main, Zone 2, Zone 3)
- On/Off Skip Timers
  (Main, Zone 2, Zone 3)
- Sleep Timers
  (Main, Zone 2, Zone 3)

UPGRADEABILITY

- Hardware Upgradeable
- Easy (no charge) Website Software Upgradeability

ADDITIONAL

- Universal Learning Back-Lit Remote Control
- Power Failure/Overheating Text Warning
- Advanced Hardware Framework (Allows longer cables to be driven without degrading or losing the signal, and provides support for 1080p/60 Hz) (AVM 40/50)
- Warranty: 3 years on Audio; 2 years on Video; 1 year on Remote Control unit

"... A MAJOR PERFORMER ... measures as good on the bench as it sounds in the living room ... at the top of my list of recommended two-channel components."

– Sandy Bird, Secrets of Home Theater and High Fidelity

RAVE REVIEWS

"… this preamplifier was performing fantastically … accurate and very detailed … music was well paced, rhythmic and easy to listen to … soundstage was tight and instruments were well placed … the cornerstone of a very high performing system …"

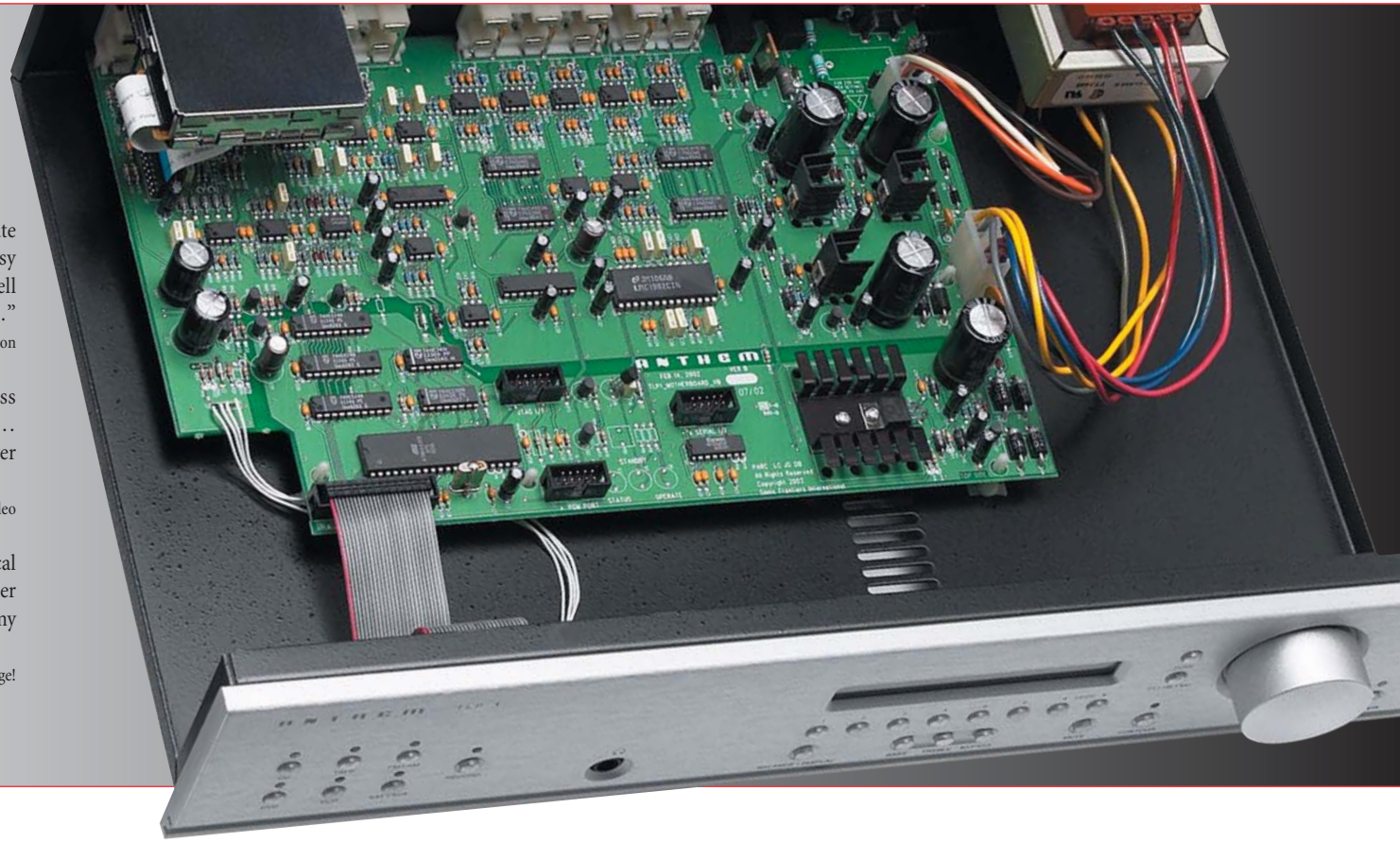
– Brian Kahn, AudioVideo Revolution

"… remarkable … strikingly realistic … clarity … naturalness … precise instrumental separation … harmonic richness … amazing range … the smoothness—will seduce you … never once tripped up … simply outstanding."

– Robet Lussier, Québec AudioVideo

"… eminently enjoyable … loaded with features … easy musical flow … good snap—good rhythmic consistency … nice shimmer … I got so wrapped up in the music that I was ready to grab my wife and hit the dance floor."

– John Crossett, SoundStage!



IT'S ABOUT THE MUSIC

Getting audiophiles to agree on the merits of high-end audio gear is never easy. But in the end, it's about the music. Gauging an audio product comes down to just one question … how does it sound? In the case of Anthem's stereo preamplifier, the answer is simple … the TLP1 sings!

Some say the more bells and whistles the better! "Give us minimalist", cry the audiophiles—nothing more than what the artist recorded. The TLP1 brings both camps together. Its focus is sonic performance!

Behind the polished upscale look is Anthem's 'keep-it-simple' philosophy. Nothing to clutter the signal path, nothing to compromise the integrity of the music. Having said this, however, there remains an understated complexity to this stereo preamplifier/tuner. Far more involved than most so-called 'high-end' or 'purist' preamplifiers, the TLP1 enjoys all of the benefits of trickle-down technology, incorporating design features from our enormously successful and award-winning AVM lineup.

To sum it up, the TLP1 is an audiophile's dream … an extremely low-noise design for a dead-silent noise floor, ultra-low distortion, and extended frequency response. It paints an animated sonic picture. Never fatiguing, never ordinary, always inspiring.

PURITY AND INTEGRITY OF SOUND

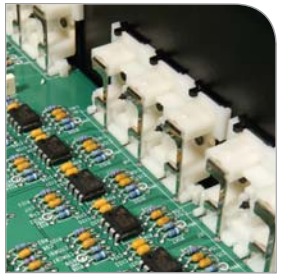
TLP1 parts are superior quality and close tolerance—carefully chosen to maintain the lowest possible total harmonic distortion plus noise. Take, for example, our use of metal film resistors and high-quality film signal capacitors. And all inputs are individually buffered to prevent one source from interfering with another.

100 dB SIGNAL-TO-NOISE RATIO

At 100 dB, signal-to-noise ratio in the TLP1 rivals that of far more expensive preamplifiers on the market—a direct result of the meticulous attention paid to groundplanes and the design of the power supply. Circuit board traces were painstakingly laid out by hand. Out of the silent black background the only thing that comes through is the music—rich, full and enveloping—drawing you into its heart, technicalities forgotten.

THE POWER SUPPLY

The TLP1's power supply starts with our unique, custom-made low-noise transformer—a major contributor to the TLP1's low-noise floor. It boasts a larger-than-usual core with extremely low flux density (10 K Gauss) which helps to dramatically reduce line spiking and high-frequency noise. Four low-ESL, low-ESR oversized capacitors and four precision voltage regulators provide fully independent power supply rail voltages to minimize interference and noise.



HIGH-END OPERATIONAL AMPS

In keeping with our philosophy of "less is more," tonal purity is preserved through the use of high-end operational amps employed with a three-fold purpose: to dramatically reduce the number of discrete component parts, increase gain without attenuating high frequencies and amplify the signal without increasing the load.

The TLP1 uses superior operational amps selected for each circuit design application to ensure minimum distortion and low DC offset. Odd-order harmonic distortion, particularly irritating to the ear, is reduced.

ANALOG VOLUME CONTROL

Clean, articulate sound—particularly at low listening levels—hinges on the quality of the volume control. The TLP1 features a high-performance, digitally controlled CMOS stepped-attenuator, adjustable in 0.5-dB increments. Volume setting is controlled by a microprocessor, while the audio signal itself travels through in analog form. Careful attention was paid to the circuit-board layout, microprocessor design and software design to maintain the purity of the analog audio signal.

STEREO HIGH-PASS, SUBWOOFER OUTPUT

In addition to Main outputs for full-range speakers, the TLP1 contains a built-in 80-Hz crossover facilitating the use of bookshelf speakers together with a subwoofer. The built-in crossover offers both high-pass (speaker) and low-pass (subwoofer) outputs. In addition, a full-range subwoofer output is included for subwoofers with their own built-in crossover.

TONE CONTROLS WITH MEMORY

True to its purist roots, the TLP1 provides options when it comes to tone. Bass and treble controls only affect the tonal extremes in an undramatic way. These actions are "remembered" for each source. Boost the treble for AM, then set to "0" for CD and both settings will be remembered.

Our hearing sensitivity to bass decreases when listening to music at low volume levels. The TLP1's selectable Tone Contour works in concert with the volume control, using a proven psycho-acoustic model to add precise amounts of bass at various low volume levels beginning at approximately -20 dB. The result is clean, balanced sound—even at low levels.

THREE-LEVEL DISPLAY

The front panel LCD display offers an adjustable brightness control, making it easy to see the display during the day and allowing you to dim it in the evening. When dimmed, it will brighten momentarily whenever a button is pressed or volume is changed.

RECORD WITH INDEPENDENT SOURCE SELECTION

Main and Record outputs are completely independent, allowing you to select a different source for each output simultaneously. So, while you are listening to your usual FM radio station counting down the hits on a Saturday morning, you can make a recording of your favorite CD to play in the car.

ZONE 2 OPERATION

For your convenience, along with the Record output, the TLP1 provides a concurrent fixed-level Zone 2 output. For Zone 2 operation simply connect this output to an integrated amplifier or stereo receiver.

MATCH SOURCE LEVELS

Want each of your components to play at a similar level when you switch from source to source (i.e. FM/AM to Tape, to CD, to TV, etc.), so that you don't have to reach for the volume each time you switch? The TLP1 lets you make independent input level-trim adjustments for each source in order to bring these otherwise bothersome differences to the same level.

TRIGGER OUTPUT

A trigger output makes it easy to automate your music listening system. If your other components, including your power amplifier, have provisions for a trigger input, you can automatically turn them on or off with a push of the TLP1's Power button or Remote Control. Simply connect the Relay Trigger output from the TLP1 to the trigger input of your power amplifier, TV, CD, etc.

"... AWESOME ... INCREDIBLE ... A REVELATION."

– Roger Kanno, SoundStage!

RAVE REVIEWS

"… fast and transparent … enveloping and realistic … power and authority that is remarkable … incredible dynamics … thunderous bass … plays—without strain … one of the more refined amplifiers that I have heard at anywhere near its price point."

– Roger Kanno, SoundStage!

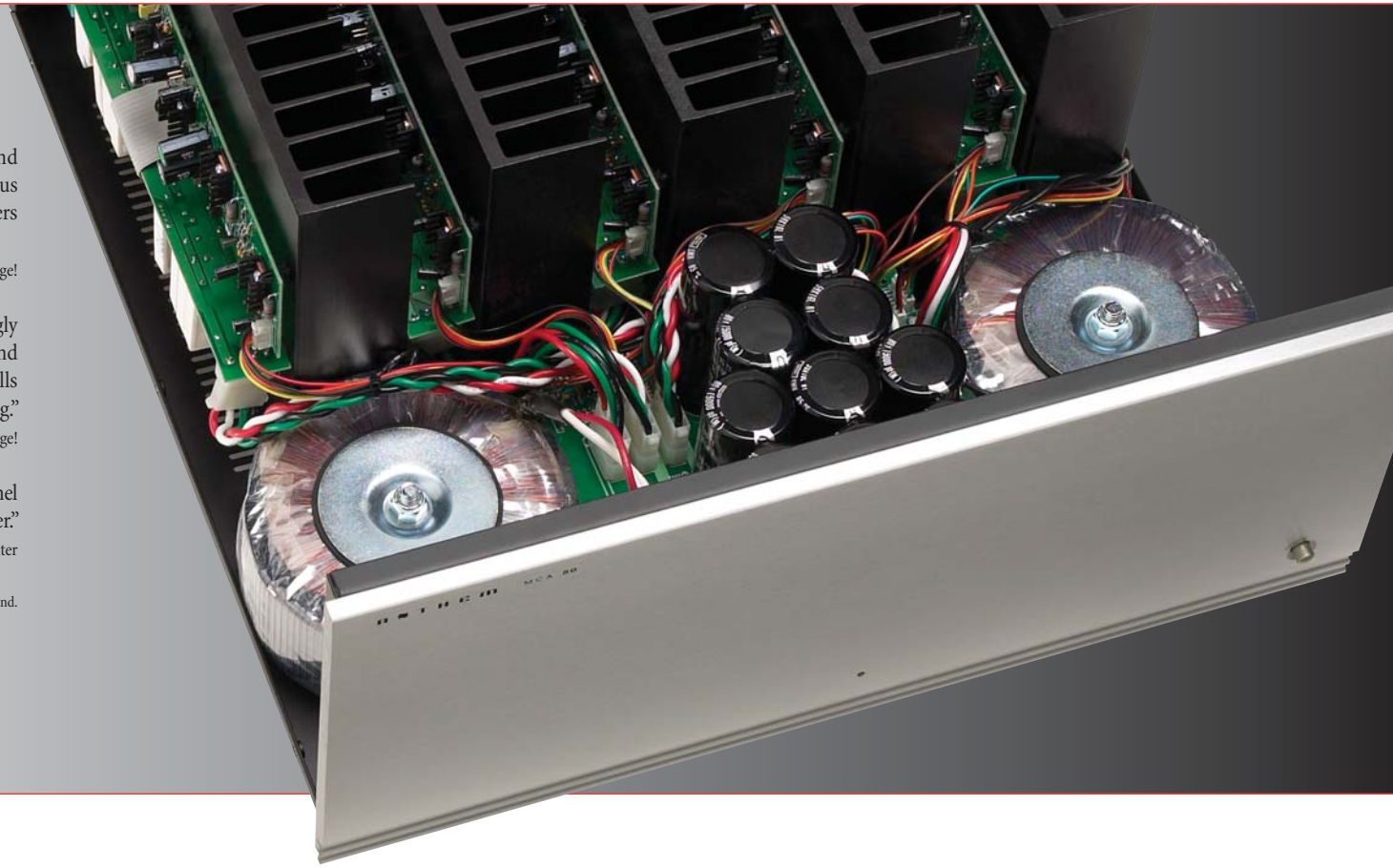
"… exceptional … startling precision and authority … exceedingly clean and detailed … fast and transparent … plenty of power and excellent frequency response … able to deliver unexpected thrills … paints a vivid sonic picture … at a price that begs for auditioning."

– Doug Schneider, SoundStage!

"… one of the few true high output, audiophile quality, multi-channel power amplifiers on the market … an endless supply of sheer power."

– Alan L. Maier, SMR Home Theater

Some highlights are from a previous generation. Model has been further improved for even better sound.



A STUDY IN SONIC CONTRASTS

Our remarkable MCA multichannel amplifiers are a study in sonic contrasts. Hefty, with a weight and authority reminiscent of far more expensive amplifiers; able to play deep, tight and loud without breakup. They are capable of reproducing all of the multichannel magic and complex dynamics of the most demanding 7.1-channel surround-sound experience without ever losing control.

But they are also consummate musicians, delivering a transparency and clarity that brings out even the most elusive notes of an elaborate aria.

Whether it's the finesse required to satisfy the discerning audiophile, the power demanded by the home theater enthusiast, or the reliability required for professional installations, MCA amplifiers deliver it all!

SOUND PURITY AND INTEGRITY

Our design for MCA amplifiers follows the "Keep-It-Simple" principle. We utilize the fewest possible number of parts in the signal path to maintain the integrity of sound. All parts are of the highest quality and tolerance. These remarkable amplifiers offer the profound sense of musical purity, transparency and naturalness demanded by the most discerning listener.

EIGHT OUTPUT DEVICES PER CHANNEL

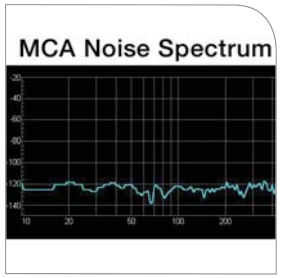
Solid state amplifiers get their power from the output devices used in the amplification stage. Just like cylinders in a car's engine, the greater the number of devices per channel, the greater the available high-current power for the crescendos in music, or the thrills, thunder and explosions in movies. Performance is simply more effortless. It also means that the amplifier will run cooler, making it more reliable.

MIRROR-IMAGED CHANNELS

Frequency response channel-matching in our amplifiers has always been far better than the norm. In fact, MCA amplifiers are virtually mirror-imaged. All amplifier channels offer identical performance. The musical picture is incredibly vivid, seamless, and detailed, with a multi-channel soundstage that is exceptionally clear, coherent and three-dimensional.

MODULAR DESIGN

Each amplifier channel is completely self-contained on its own board and heatsink. In the rare event that service should be required, it can be done quickly and easily by a qualified technician, minimizing the "down time" of your system.



NO NOISE, LOW DISTORTION

In a rare feat, transformer-induced noise at the bass frequencies of 60 Hz, 120 Hz, and 180 Hz, has effectively been eliminated. MCA amplifiers boast vanishing noise and unbelievably low levels of Total Harmonic Distortion.

120 dB SIGNAL-TO-NOISE RATIO

Signal-to-noise ratio in MCA amplifiers is 120 dB … a truly remarkable feat! Music and movie soundtracks simply appear out of "dead" silence allowing you to become lost in the emotion of the original performance —the mark (and the end goal) of a truly high-end audio-video component. During even the most tranquil musical passages or dramatically quiet moments in a movie, the background is so 'black' that it is audibly gone.

MASSIVE TOROIDAL POWER SUPPLIES

MCA amplifiers deliver incredible dynamics thanks to massive "audiophile-approved" conservatively rated power supplies designed with high rail voltages. Advanced-generation toroidal power transformers ensure ultra-quiet performance by minimizing stray magnetic field radiation. This provides the pure, clean, low-noise power that is needed to reproduce the full dynamics of home theater and the most complex and dynamic music recordings.

STABLE AS A ROCK

Our amplifiers are incredibly stable into difficult, low-impedance speaker loads, making these superb-sounding dynamos reliable performers in even the toughest circumstances.

RCA INPUTS, XLR BALANCED INPUTS

Gold-plated female RCA jacks provide a high-quality input connection. XLR balanced connections are commonly used in professional recording and broadcasting to ensure the lowest level of noise and hum possible. Now you can use this same high-quality connection for reference-quality high-end sound since XLR balanced inputs are included on all MCA amplifiers.

Our unique auto-sensing technology makes connecting inputs a snap. Plug in either the RCA or XLR connector and the technology automatically selects the right input.

50% LARGER POWER SUPPLY RESERVOIRS

More Power! More space to store it! With 225 watts, large banks of capacitors are needed to store all of the energy required for the immense dynamic bursts of various special effects in a movie, or the taxing crescendo of a solo piano. These amplifiers are the most powerful MCA amplifiers yet, employing 30,000 micro farads (µF) of capacitance per channel (that's 150,000 µF for the MCA 50). With so many joules of energy in reserve, when called upon, the MCA 20, MCA 30 and MCA 50 are able to deliver full bursts of power instantly and effortlessly.

LARGER CUSTOM CHASSIS AND HEATSINKS

A redesigned chassis and large custom heatsinks—33% larger than previous MCA Series amplifiers—ensure that these amplifiers dissipate the heat generated by their higher power levels quickly and efficiently. Our custom heatsinks are computer-designed and modeled to maximize contact area for exceptional heat transfer efficiency. Put simply, they run cooler for greater reliability.

MULTIPLE POWER SWITCHES

MCA amplifiers can be powered On/Off three ways: manually with the On/Off switch on the front panel; remotely via the 12-volt trigger input on the rear; or automatically, with our patented Auto-On/Off circuit—an incoming audio signal immediately switches it on, and approximately 20 minutes after the audio signal ends, it simply switches off.

BETTER OUTPUT CONNECTION

Our own custom-designed, oversized robust binding posts ensure full power delivery at all times. They're easy to use and facilitate large speaker cable connectors.

DETACHABLE POWER CORD

While a detachable AC power cord comes in handy when connecting various components, its function is more than one of simple convenience. High-end products typically offer the freedom to use a variety of after-market power cords offered by specialty cable manufacturers. By including IEC detachable AC female sockets and high-power, high-quality 14-awg AC cords, MCA amplifiers further demonstrate their high-end pedigree.

SUPERIOR CRAFTSMANSHIP

Like all Anthem products the MCA 20, MCA 30 and MCA 50, designed and built in North America, are like no other amplifiers in the world: custom low-noise high-power toroidal transformers; high-current bipolar output transistors; high-quality filter capacitors; advanced power supply regulators; oversized aluminum heatsinks; custom-designed dual binding posts; and patented auto-on/off circuitry. Superior craftsmanship that is reflected in clean, clear, audiophile-quality sound from top to bottom of the frequency spectrum.

"... EXCEEDS ALL EXPECTATIONS for its price category."

– Shane Buettner, The Perfect Vision

RAVE REVIEWS

"… musically right … timbrally accurate … what do you say about a product that exceeds all expectations for its price category … I've not heard an amplifier that's significantly better at anywhere near its price … a stone-cold bargain."

– Shane Buettner, The Perfect Vision

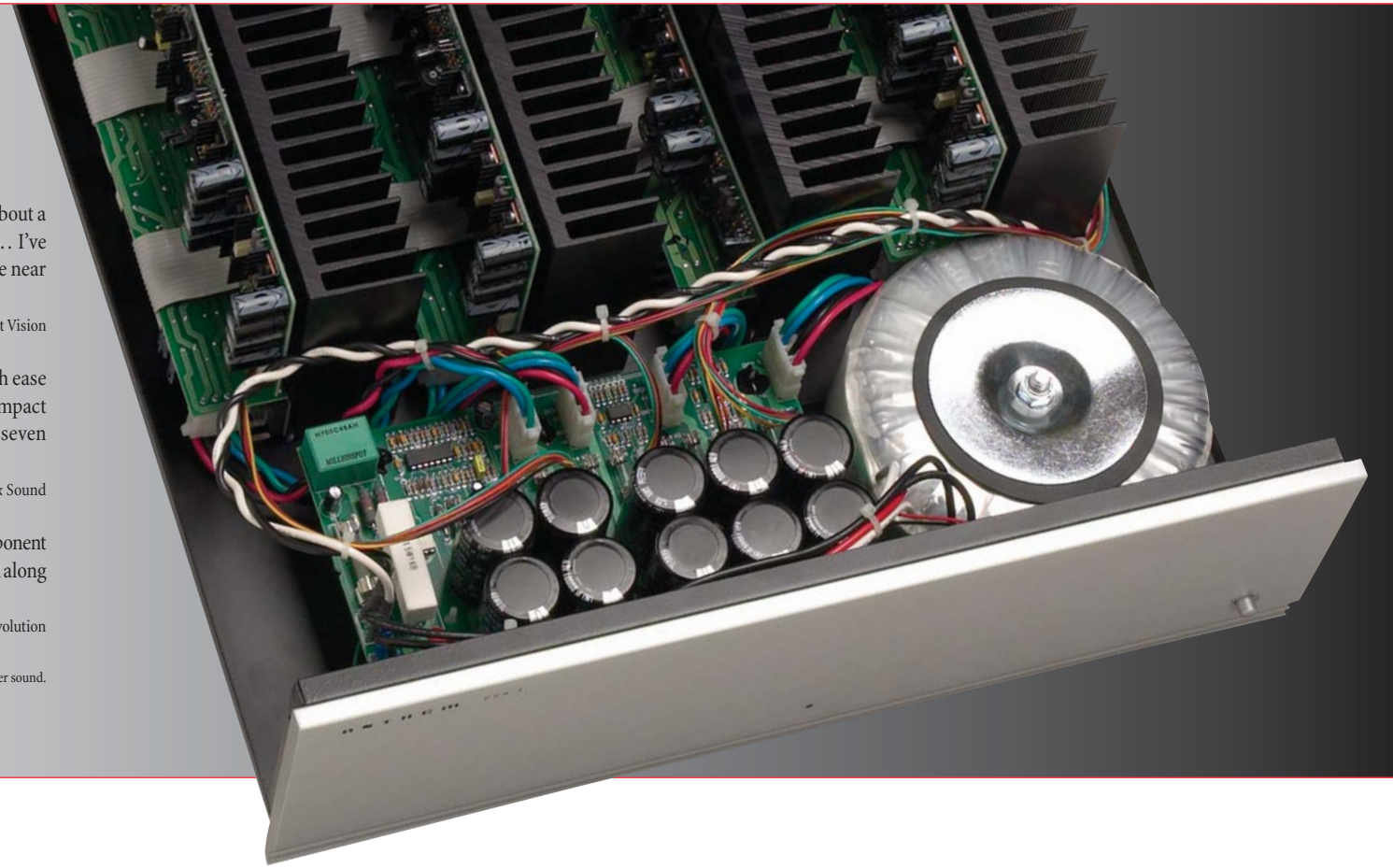
"… fleet-of-foot nature maintained the recording's quality with ease … kept pace with complex soundtrack material … excellent impact and transient speed … could easily handle the format, and seven speakers, without losing control. This is pretty incredible."

– Jeff Fritz, Home Theater & Sound

"… a remarkable product … The ability to complement any component with its velvety silence and poise under demanding conditions, along with its musicality, put it at the top of its peer group."

– Tim Hart, AudioVideo Revolution

Some highlights are from a previous generation. Model has been further improved for even better sound.



ANYTHING BUT AVERAGE

Unlocking the incredible sound sculptures, special effects and dynamics of today's home theater and music recordings is no small feat, at least for the average amplifier. But then, Anthem's PVA 2, PVA 5 and PVA 7 amplifiers are anything but average. They are equally at home delivering all of the thundering impact and excitement of a surround sound movie experience as they are imparting the subtle nuances of a multichannel music performance, or paying rich sonic tribute to the sweeping highs and lows of your favorite stereo recording.

They are worldclass overachievers, able to withstand the scrutiny of direct comparisons, both sonically and in build quality, with amplifiers costing several times as much! They are, by a wide margin, the best value high-end amplifiers available.

A PASSION FOR BETTER SOUND!

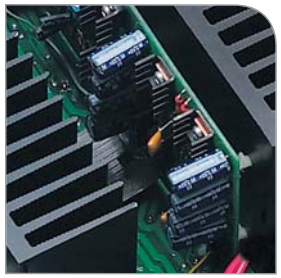
Before pragmatic design, before performance testing and long before production comes passion! A passion to produce something exceptional. Anthem products are extraordinary, meeting and exceeding the needs and expectations of audiophiles everywhere. Whether for personal or professional use, Anthem products are worldclass leaders in high-end performance and value.

EXPERT CRAFTSMANSHIP. SUPERIOR QUALITY CONTROL

Our products are award-winning and internationally recognized not only for their exceptional sonic performance, but also for their superb craftsmanship and reliability. Every product must meet our rigorous standards of performance before it is released to market. The result is a truly superb selection of products that are guaranteed to provide their owners with complete and lasting satisfaction. It's not surprising that Anthem products are highly sought after around the world!

122 dB SIGNAL-TO-NOISE RATIO

"… an incredible S/N ratio of 122 dB. Good grief! That's as good as no noise at all," said Brian Florian, Secrets of Home Theater and High Fidelity, commenting on the PVA 7. Whether it's the subtle (or not-so-subtle) special effects in a movie, or the tonal subtleties produced by the strings of a single violin, PVA amplifiers capture it all! Ultra-low distortion and a truly incredible signal-to-noise ratio place these amplifiers among the cleanest and quietest on the market. From a silent black background, sound appears in its purest form to envelop you in powerful emotion.



SUPERIOR COMPONENT PARTS AND MATERIALS

Superior performance demands superior components and materials. PVA amps are designed and built in North America using the finest quality parts and materials. From military-spec (FR-4-rated) epoxy circuit boards to multiple high-current bipolar-output transistors; from oversized, computer-designed heatsinks to our own custom-designed robust binding posts, the build quality of these amps ranks among the finest in the world!

EXEMPLARY CIRCUIT DESIGN

The sonic purity of the PVA amplifier design is the result of our intensive research and development in high-end design. Superior high-end sound begins with a superior power supply. These amplifiers use custom-built, low-noise, high-power toroidal transformers and advanced power supply regulators with high-quality, low-ESL and low-ESR filter capacitors. They possess huge storage capacity of 100,000 micro farads (μF) in the PVA 7, 60,000 in the PVA 5, and 40,000 in the PVA 2.

Our proprietary and patented circuit designs follow Anthem's 'Keep-It-Simple' principle, using the fewest number of parts in the signal path to maintain the integrity of sound. These amplifiers provide the finesse and instantaneous output power to effortlessly reproduce the challenging variety of special effects in movies and demanding musical passages. They are stable as a rock, even into difficult loads.

PVA amplifiers can be powered On/Off three ways: manually, with the On/Off switch on the front panel; remotely, via the 12-volt trigger input; or automatically, with our patented Auto-On/Off circuit—an incoming audio signal immediately switches it on, and approximately 20 minutes after the audio signal ends, it simply switches off.

D2

VIDEO SWITCHING

Bandwidth from input jack to output jack (bypass mode for component video)

- Composite and S-Video ..... 70 MHz
- Component: Y ..... 110 MHz
  - Pr ..... 90 MHz
  - Pb ..... 80 MHz

All analog video inputs and outputs are 75 Ω, 1.5 Vp-p.

ANALOG AUDIO

Input Impedance ..... 20 kΩ

Output Impedance

- Main–RCA ..... 300 Ω
- XLR ..... 600 Ω
- Zones 2/3 and Record ..... 51 Ω

Rated Input ..... 2.0 Vrms

Maximum Input ..... 5.3 Vrms

Minimum Load ..... 5 kΩ

Rated Output (100 kΩ load) ..... 2.0 Vrms

Maximum Output

- RCA ..... 6.3 Vrms
- XLR ..... 12.6 Vrms

Headphone Output ..... 100 mW into 32 Ω at 0.2% THD+N

Volume Control Range

- Main ..... -95.5 dB to +31.5 dB (in 0.5 dB increments)
- Zones 2/3 and Headphone ..... -62.5 dB to +10.0 dB (in 1.25 dB increments)

Crosstalk (at 1 kHz) ..... 82 dB between channels; 86 dB between inputs

XLR Pin Configuration ..... Pin 1: Ground, Pin 2: Positive, Pin 3: Negative

DIGITAL AUDIO

Crossover

- High-Pass Slope (small speaker setting) ..... 12 dB/octave (2nd order)
- Low-Pass Slope (subwoofer) ..... 24 dB/octave (4th order)
- Frequency (adjustable) ..... 25 Hz to 160 Hz (in 5 Hz increments)

Tone Control

- Filter Type ..... Shelf
- Range ..... ±12 dB
- Bass Turnover Frequency ..... 200 Hz
- Treble Turnover Frequency ..... 2 kHz

Analog to Digital Conversion S/N Ratio (at digital Rec output) (IEC-A Filter) ..... 100 dB

All digital inputs and outputs comply with HDMI™, S/PDIF or AES/EBU standards. Sample rate converter output is 24-bit/192 kHz regardless of input.

MAIN PATH (RCA and XLR Outputs)

Frequency Response and **Bandwidth**

- Analog Direct Inputs ..... 10 Hz to 20 kHz (+0 -0.2 dB), 1 Hz to 130 kHz (+0 -3 dB)
- Analog-DSP Inputs at 24/96 ..... 10 Hz to 20 kHz (+0 -0.3 dB), 2 Hz to 44 kHz (+0 -3 dB)
- Digital Inputs at 24/96 ..... 10 Hz to 20 kHz (+0 -0.2 dB), 1 Hz to 45 kHz (+0 -3 dB)

THD+N (at Rated Input and Output)

- Analog Direct Inputs ..... 0.006% (80 kHz BW)
- Analog-DSP Inputs at 24/48 or 24/96 ..... 0.004% (AES17 Filter)
- Digital Inputs at 24/48 or 24/96 ..... 0.004% (AES17 Filter)

IMD (CCIF at 15 kHz and 16 kHz)

- Analog Direct Inputs ..... <0.001%
- Analog-DSP Inputs at 24/48 ..... 0.001%
- Digital Inputs at 24/48 or 24/96 ..... 0.001%

S/N Ratio (ref. 2.0 Vrms, IEC-A filter)

- Analog Direct Inputs ..... 107 dB
- Analog-DSP Inputs at 24/48 or 24/96 ..... 101 dB
- Digital Inputs at 24/48 or 24/96 ..... 104 dB

ZONE 2 and ZONE 3 PATHS

Frequency Response and **Bandwidth** . 20 Hz to 20 kHz (+0 -0.1 dB), 3 Hz to 140 kHz (+0, -3 dB)

THD+N (at Rated Input and Output) ..... 0.06% (80 kHz BW)

IMD (CCIF at 15 kHz and 16 kHz) 0.06%

S/N Ratio (ref. 2.0 Vrms, IEC-A Filter) ..... 97 dB

FM TUNER

Sensitivity 50 dB S/N ..... 13 dBμ typical, 25 dBμ max.
IHF ..... 10 dBμ typical, 20 dBμ max.

S/N Ratio Mono ..... 75 dB typical, 65 dB min.
Stereo ..... 69 dB typical, 60 dB min.

Distortion Mono ..... 0.2% typical, 1.0% max.
Stereo ..... 0.3% typical, 1.5% max.

Stereo Separation ..... 40 dB typical, 25 dB min.

Adjacent Channel Selectivity (±400 kHz) ..... 70 dB typical, 60 dB min.

Frequency Response ..... 25 Hz to 15 kHz (+0 -2 dB)

AM TUNER

Sensitivity (20 dB S/N) ..... 49 dBμ typical, 56 dBμ max.

S/N Ratio ..... 50 dB typical, 43 dB min.

Distortion ..... 0.7% typical, 2.0% max.

One-Signal Selectivity (±10 kHz) ..... 24 dB typical, 18 dB min.

CONTROL

Infrared

- Carrier Frequency ..... 38 kHz
- Maximum 12 V Supply Current ..... 150 mA
- Maximum Emitter Current ..... 60 mA per output

RS-232 Interface

- Connection ..... DB-9F, straight-wired
- Pinout (D2 side) ..... Pin 2: Tx, Pin 3: Rx, Pin 5: Ground
- Baud Rate 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200
- Configuration ..... 8 data bits, 1 stop bit, no parity bits, flow control (RTS/CTS, none)

Trigger Outputs

- Polarity ..... tip positive, sleeve ground
- Maximum Current at 12 VDC ..... 300 mA between all three triggers
- Sequential Delay ..... 250 ms

POWER REQUIREMENT

Consumption ..... Maximum 170 W

DIMENSIONS

Height ..... 5-7/8 inches (14.9 cm) including feet; rack-mounting: 3 rack units without feet

Width: Standard version ..... 19-1/4 inches (49 cm)
Rack-Mount version ..... 19 inches (48.3 cm)
No-Handle version ..... 17-1/4 inches (43.8 cm)

Depth ..... 15-1/4 inches (38.7 cm)

Weight (unpacked) ..... 27 lb (12.3 kg)

TECHNICAL SPECIFICATIONS

P2 | P5

P2

P5

A2

A5

INPUTS

P2 . . . . . 2 Single-Ended, 2 Balanced, 1 Relay Trigger (3.5 mm Mono Jack)
P5 . . . . . 5 Single-Ended, 5 Balanced, 1 Relay Trigger (3.5 mm Mono Jack)

OUTPUTS

P2 . . . . . 2 Pairs Speaker Binding Posts, 1 Relay Trigger (3.5 mm Mono Jack)
P5 . . . . . 5 Pairs Speaker Binding Posts, 1 Relay Trigger (3.5 mm Mono Jack)

SWITCHES

Front Panel . . . . . Power (On/Off)
Rear Panel . . . . . On/Off Modes (Trigger, Manual, Auto), Inputs (RCA, XLR, XLR -6dB)

THD+N . . . . . 0.0007% at 1 kHz, 0.008% at 20 kHz (200 W into 8 Ω)

POWER OUTPUT

(Per channel, continuous RMS, 20 Hz to 20 kHz, <0.1% THD, one or all channels driven)

Impedance	8 Ω		4 Ω		2 Ω	
# of Channels Driven	1	All	1	All	1	All
P2	325 W	325 W	500 W	500 W	675 W	675 W
P5	325 W	325 W	500 W	500 W	675 W	675 W

P2 and P5 amplifiers are stable into any impedance down to a short circuit at full output

IMD . . . . . 0.00019% (CCIF, 325 W into 8 Ω)
POWER BANDWIDTH . . . . . 10 Hz to 150 kHz (+0 -3 dB, 325 W into 8 Ω)
FREQUENCY RESPONSE . . . . . 20 Hz to 20 kHz (+0 -0.15 dB), 5 Hz to 100 kHz (+0 -2 dB)
INPUT SENSITIVITY (RCA and XLR 0 dB inputs) . . 1 Vrms in for 28.3 Vrms out (100 W into 8 Ω)
INPUT IMPEDANCE . . . . . 18 kΩ (RCA), 22 kΩ (XLR)
DAMPING FACTOR . . . . . >600 at 20 Hz, 400 at 1 kHz (ref. 8 Ω)
S/N RATIO . . . . . 125 dB, A-weighted (ref. 325 W)
CROSSTALK (between any two channels) . . . . . -140 dB (20 Hz), -80 dB (20 kHz)
VOLTAGE GAIN . . . . . 29 dB
SLEW RATE . . . . . 40 V/µs

POWER REQUIREMENT

Power Consumption (at maximum power) (output 8 Ω load)
P2 . . . . . 1800 W (140W at idle)
P5 . . . . . 2 x 1800 W (340W at idle)

DIMENSIONS

Height . . . . . 9-3/8 inches (23.8 cm) including feet; rack-mounting: 5 rack units without feet
Width:
Standard version . . . . . 19-1/4 inches (49 cm)
Rack-Mount version . . . . . 19 inches (48.3 cm)
No-Handle version . . . . . 17-1/4 inches (43.8 cm)
Depth . . . . . 22-1/2 inches (57.2 cm) including handles

WEIGHT (unpacked)

P2 . . . . . 75 lb (34 kg)
P5 . . . . . 130 lb (59 kg)

A2 | A5

INPUTS

A2 . . . . . 2 Single-Ended, 2 Balanced, 1 Relay Trigger (3.5 mm Mono Jack)
A5 . . . . . 5 Single-Ended, 5 Balanced, 1 Relay Trigger (3.5 mm Mono Jack)

OUTPUTS

A2 . . . . . 2 Pairs Speaker Binding Posts, 1 Relay Trigger (3.5 mm Mono Jack)
A5 . . . . . 5 Pairs Speaker Binding Posts, 1 Relay Trigger (3.5 mm Mono Jack)

SWITCHES

Front Panel . . . . . Power (On/Off)
Rear Panel . . . . . On/Off Modes (Trigger, Manual, Auto), Inputs (RCA, XLR)

THD+N . . . . . 0.001% at 1 kHz, 0.03% at 20 kHz (200 W into 8 Ω)

POWER OUTPUT

(Continuous RMS, 20 Hz to 20 kHz, <1.0% THD)

Impedance	8 Ω		4 Ω		2 Ω	
# of Channels Driven	1	All	1	All	1	All
A2	225 W	200 W	370 W	300 W	535 W	410 W
A5	225 W	180 W	370 W	265 W	535 W	340 W*

**Special Test Conditions Required*

IMD . . . . . 0.0005% (CCIF, 225 W into 8 Ω)
POWER BANDWIDTH . . . . . 10 Hz to 100 kHz (+0 -3 dB, 225 W into 8 Ω)
FREQUENCY RESPONSE . . . . . 20 Hz to 20 kHz (+0 -0.15 dB), 5 Hz to 100 kHz (+0 -2 dB)
INPUT SENSITIVITY . . . . . 1.5 Vrms in for 225 W out into 8Ω
INPUT IMPEDANCE . . . . . 10 kΩ (RCA), 15 kΩ (XLR)
DAMPING FACTOR . . . . . 360 at 1 kHz (ref. 8 Ω)
S/N RATIO . . . . . 120 dB, A-weighted (ref. 225 W)
CROSSTALK . . . . . -78 dB at 1 kHz
VOLTAGE GAIN . . . . . 29 dB
SLEW RATE . . . . . 30 V/µs

POWER REQUIREMENT

Power Consumption (at maximum power) (output 8 Ω load)
A2 . . . . . 800 W
A5 . . . . . 1800 W

DIMENSIONS

Height . . . . . 7-5/8 inches (19.4 cm) including feet; rack-mounting: 4 rack units without feet
Width:
Standard version . . . . . 19-1/4 inches (49 cm)
Rack-Mount version . . . . . 19 inches (48.3 cm)
No-Handle version . . . . . 17-1/4 inches (43.8 cm)
Depth . . . . . **A2**: 13-1/2 inches (34.3 cm), **A5**: 19-3/8 inches (49.2 cm)

WEIGHT (unpacked)

A2 . . . . . 34 lb (15.5 kg)
A5 . . . . . 57 lb (25.9 kg)

ADVANCED LOAD MONITORING (ALM™)

All Anthem® and Anthem® Statement amplifiers are designed to perform flawlessly—offering stunning musicality, tonal neutrality and incredible dynamics while driving any speaker load reliably under real-world conditions! The power supply is conservatively rated and the amplifiers run cool for greater reliability, but we didn't stop there.

These amplifiers feature our ALM™ (Advanced Load Monitoring) circuitry which protects sensitive output devices by constantly monitoring temperature, current and voltage to ensure optimum long-term performance. ALM™ is totally non-invasive—it is not in the signal path and only engages in the most extreme circumstances to protect the amplifier from damage by maintaining the safe operating area of the output devices. Buyer beware however! Not all amplifier manufacturers have sophisticated load-monitoring provisions. Many have saved the added cost, leaving their output devices unprotected, choosing instead to use the amplifier's output devices as "fuses." At Anthem, ALM™ is just one of the ways in which our products provide owners with years of reliable service.

AVM 30

AVM 40

AVM 50

Optional Rack Kits
(See Dealer for more information)

VIDEO SWITCHING

Bandwidth from input jack to output jack
- Composite and S-Video ..... 70 MHz
- Component: Y ..... 110 MHz
- Pr ..... 90 MHz
- Pb ..... 80 MHz

All analog video inputs and outputs are 75 Ω, 1.5 Vp-p.

ANALOG AUDIO

Input Impedance ..... 20 kΩ
Output Impedance
- Main–RCA ..... 300 Ω
- XLR ..... 600 Ω
- Zones 2/3 and Record ..... 51 Ω

Rated Input ..... 2.0 Vrms
Maximum Input ..... 5.3 Vrms; 3.0 Vrms for 6-Ch input
Minimum Load ..... 5 kΩ
Rated Output ..... 2.0 Vrms (100 kΩ load)
Maximum Output
- RCA ..... 6.3 Vrms
- XLR ..... 12.6 Vrms

Headphone Output ..... 100 mW into 32 Ω at 0.2% THD+N
Volume Control Range
- Main ..... -95.5 dB to +31.5 dB (in 0.5 dB increments)
- Zones 2/3 and Headphone ..... -62.5 dB to +10.0 dB (in 1.25 dB increments)

Crosstalk (at 1 kHz) ..... 82 dB between channels; 86 dB between inputs
XLR Pin Configuration ..... Pin 1: Ground, Pin 2: Positive, Pin 3: Negative

DIGITAL AUDIO

Crossover
- High-Pass Slope (small speaker setting) ..... 12 dB/octave (2nd order)
- Low-Pass Slope (subwoofer) ..... 24 dB/octave (4th order)
- Frequency (adjustable) ..... 25 Hz to 160 Hz (in 5 Hz increments)

Tone Control
- Filter Type ..... Shelf
- Range ..... ±12 dB
- Bass Turnover Frequency ..... 200 Hz
- Treble Turnover Frequency ..... 2 kHz

Analog to Digital Conversion S/N Ratio (at digital Rec output) (IEC-A Filter) ..... 100 dB

All digital inputs and outputs comply with HDMI™, S/PDIF or AES/EBU standards.

MAIN PATH (RCA and XLR Outputs)

Frequency Response and **Bandwidth**
- Analog Direct Inputs ..... 10 Hz to 20 kHz (+0 -0.2 dB), 1 Hz to 120 kHz (+0 -3 dB)
- Analog-DSP Inputs at 24/96 ..... 10 Hz to 20 kHz (+0 -0.3 dB), 2 Hz to 37 kHz (+0 -3 dB)
- Digital Inputs at 24/96 ..... 10 Hz to 20 kHz (+0 -0.2 dB), 1 Hz to 39 kHz (+0 -3 dB)

THD+N (at Rated Input and Output)
- Analog Direct Inputs ..... 0.006% (80 kHz BW)
- Analog-DSP Inputs at 24/48 ..... 0.006% (AES17 Filter)
- Digital Inputs at 24/48 ..... 0.004% (AES17 Filter)

IMD (CCIF at 15 kHz and 16 kHz)
- Analog Direct Inputs 0.001%
- Analog-DSP Inputs at 24/48 ..... 0.003%
- Digital Inputs at 24/48 ..... 0.001%

S/N Ratio (ref. 2.0 Vrms, IEC-A filter)
- Analog Direct Inputs ..... 106 dB
- Analog-DSP Inputs at 24/48 ..... 100 dB
- Digital Inputs at 24/96 ..... 104 dB

ZONE 2 and ZONE 3 PATHS

Frequency Response and **Bandwidth** . 20 Hz to 20 kHz (+0 -0.1 dB), 3 Hz to 140 kHz (+0, -3 dB)
THD+N (at Rated Input and Output) ..... 0.06% (80 kHz BW)
IMD (CCIF at 15 kHz and 16 kHz) 0.06%
S/N Ratio (ref. 2.0 Vrms, IEC-A Filter) ..... 97 dB

FM TUNER

Sensitivity 50 dB S/N ..... 13 dBμ typical, 25 dBμ max.
IHF ..... 10 dBμ typical, 20 dBμ max.
S/N Ratio Mono ..... 75 dB typical, 65 dB min.
Stereo ..... 69 dB typical, 60 dB min.
Distortion Mono ..... 0.2% typical, 1.0% max.
Stereo ..... 0.3% typical, 1.5% max.
Stereo Separation ..... 40 dB typical, 25 dB min.
Adjacent Channel Selectivity (±400 kHz) ..... 70 dB typical, 60 dB min.
Frequency Response ..... 25 Hz to 15 kHz (+0 -2 dB)

AM TUNER

Sensitivity (20 dB S/N) ..... 49 dBμ typical, 56 dBμ max.
S/N Ratio ..... 50 dB typical, 43 dB min.
Distortion ..... 0.7% typical, 2.0% max.
One-Signal Selectivity (±10 kHz) ..... 24 dB typical, 18 dB min.

CONTROL

Infrared
- Carrier Frequency ..... 38 kHz
- Maximum 12 V Supply Current ..... 150 mA
- Maximum Emitter Current ..... 60 mA per output

RS-232 Interface
- Connection ..... DB-9F, straight-wired
- Pinout (AVM 30/40/50 side) ..... Pin 2: Tx, Pin 3: Rx, Pin 5: Ground
- Baud Rate 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200
- Configuration ..... 8 data bits, 1 stop bit, no parity bits, flow control (RTS/CTS, none)

Trigger Outputs
- Polarity ..... tip positive, sleeve ground
- Maximum Current at 12 VDC ..... 300 mA between all three triggers
- Sequential Delay ..... 250 ms

POWER REQUIREMENT

Power Consumption
- AVM 30 ..... Maximum 140 W
- AVM 40/AVM 50 ..... Maximum 150 W

DIMENSIONS (height includes feet)

Height ..... 5-7/8 inches (14.9 cm) including feet; rack-mounting: 3 rack units without feet
Width ..... 17-1/4 inches (43.8 cm)
Depth ..... 14-1/2 inches (36.2 cm)
Weight (unpacked)
- AVM 30 ..... 28 lb (12.7 kg)
- AVM 40 ..... 28.6 lb (13 kg)
- AVM 50 ..... 30.7 lb (14 kg)

TLP 1

TLP 1

PREAMPLIFIER

Input Impedance . . . . . 25 kΩ
Main Output Impedance . . . . . 300 Ω
Record Output Impedance . . . . . 51 Ω
Rated Input . . . . . 1.0 Vrms
Maximum Input . . . . . 4.0 Vrms
Rated Output . . . . . 1.0 Vrms (100 kΩ load)
Minimum Load . . . . . 5 kΩ
Maximum Output . . . . . 3.3 Vrms
Headphone Output . . . . . 60 mW into 32 Ω at 0.2% THD+N
Volume Range . . . . . -80.0 to +8.0 dB in 0.5 dB increments

Crossover
High-Pass Slope (small speaker setting) . . . . . 12 dB/octave (2nd order) Butterworth
Low-Pass Slope (subwoofer) . . . . . 24 dB/octave (4th order) Linkwitz-Riley
Frequency . . . . . 80 Hz

Tone Control
Bass Center Frequency . . . . . 100 Hz
Treble Center Frequency . . . . . 6 kHz
Range . . . . . ±12 dB increments in 2 dB increments

Channel Separation (at 1 kHz) . . . . . 94 dB
Crosstalk Between Inputs (at 1 kHz) . . . . . 86 dB

Frequency Response and **Bandwidth**
Main Outputs . . . . . 20 Hz to 20 kHz (±0.2 dB), 1 Hz to 120 kHz (+0 -3 dB)
Record Outputs . . . . . 10 Hz to 20 kHz (+0 -0.2 dB), DC to 150 kHz (+0 -3 dB)

THD+N (1 kHz, rated input and output, 80 kHz BW)
Main Outputs 0.005%
Record Outputs 0.001%

IMD (CCIF at 15 kHz and 16 kHz)
Main Outputs 0.002%
Record Outputs 0.001%

S/N Ratio (A-weighted)
Main Outputs . . . . . 100 dB
Record Outputs . . . . . 112 dB

FM TUNER

Sensitivity 50 dB S/N . . . . . 13 dBμ typical, 25 dBμ max.
IHF . . . . . 10 dBμ typical, 20 dBμ max.

S/N Ratio Mono . . . . . 75 dB typical, 65 dB min.
Stereo . . . . . 69 dB typical, 60 dB min.

Distortion Mono . . . . . 0.2% typical, 1.0% max.
Stereo . . . . . 0.3% typical, 1.5% max.

Stereo Separation . . . . . 40 dB typical, 25 dB min.
Adjacent Channel Selectivity (±400 kHz) . . . . . 70 dB typical, 60 dB min.
Frequency Response . . . . . 25 Hz to 15 kHz (+0 -2 dB)

AM TUNER

Sensitivity (20 dB S/N) . . . . . 49 dBμ typical, 56 dBμ max.
S/N Ratio . . . . . 50 dB typical, 43 dB min.
Distortion . . . . . 0.7% typical, 2.0% max.
One-Signal Selectivity (±10 kHz) . . . . . 24 dB typical, 18 dB min.

CONTROL

Infra-Red Remote
Carrier Frequency . . . . . 38 kHz
External Receiver Input Jack . . . . . 3.5 mm mono
Trigger Output
Jack . . . . . 3.5 mm mono (tip positive, sleeve ground)
Maximum Output . . . . . 50 mA at 12 VDC

POWER REQUIREMENTS

Supply Voltage . . . . . 105 to 130 V, 60 Hz
Power Consumption . . . . . Maximum 25 W
Fuse Rating (fuse is internal) . . . . . 500 mA slow-blow 5 x 20 mm

DIMENSIONS

Height . . . . . 4-1/8 inches (10.5 cm) including feet
Width . . . . . 17-1/4 inches (43.8 cm)
Depth . . . . . 11-1/4 inches (28.6 cm)
Weight (unpacked) . . . . . 14 lb (6.4 kg)

TECHNICAL SPECIFICATIONS

MCA 20

MCA 30

MCA 50

PVA 2

PVA 5

PVA 7

Optional Rack Kits
Available for most models
(See Dealer for more information)

MCA 20 | 30 | 50

INPUTS

MCA 20 . . . . . 2 Single-Ended, 2 Balanced, 1 Relay Trigger (3.5-mm Mono Jack)
MCA 30 . . . . . 3 Single-Ended, 3 Balanced, 1 Relay Trigger (3.5-mm Mono Jack)
MCA 50 . . . . . 5 Single-Ended, 5 Balanced, 1 Relay Trigger (3.5-mm Mono Jack)

OUTPUTS

MCA 20 . . . . . 2 Pairs Speaker Binding Posts, 1 Relay Trigger (3.5-mm Mono Jack)
MCA 30 . . . . . 3 Pairs Speaker Binding Posts, 1 Relay Trigger (3.5-mm Mono Jack)
MCA 50 . . . . . 5 Pairs Speaker Binding Posts, 1 Relay Trigger (3.5-mm Mono Jack)

SWITCHES

Front Panel . . . . . Power On/Off
Rear Panel . . . . . 3 On/Off Modes (Trigger, Manual, Auto)

THD + N . . . . . 0.0015% at 1 kHz, 0.03% at 20 kHz (100 W into 8 Ω)

POWER OUTPUT

(Continuous RMS, 20 Hz to 20 kHz, <1.0% THD)

Impedance	8 Ω		4 Ω		2 Ω	
# of Channels Driven	1	All	1	All	1	All
MCA 20	225 W	200 W	370 W	300 W	535 W	410 W
MCA 30	225 W	180 W	375 W	265 W	550 W	340 W
MCA 50	225 W	180 W	370 W	265 W	535 W	340 W*

**Special Test Conditions Required*

HEADROOM . . . . . 1.45 dB (8 Ω), 2.3 dB (4 Ω)
POWER BANDWIDTH . . . . . 10 Hz to 80 kHz (+0 -3 dB) (200 W at 8 Ω)
FREQUENCY RESPONSE . . . . . 20 Hz to 20 kHz (+0 -0.15 dB), 5 Hz to 100 kHz (+0 -2 dB)
INPUT SENSITIVITY . . . . . 1.5 Vrms for 225 W into 8 Ω
INPUT IMPEDANCE . . . . . 10 kΩ (RCA), 15 kΩ (XLR)
DAMPING FACTOR . . . . . 130 at 1 kHz (ref. 8 Ω)
S/N RATIO . . . . . 120 dB A-weighted (ref. 225 W)
CHANNEL SEPARATION . . . . . >65 dB (100 Hz to 10 kHz)
VOLTAGE GAIN . . . . . 29 dB
SLEW RATE . . . . . 20 V/µs

POWER REQUIREMENT

Power Consumption (at maximum power output) (8 Ω load)
MCA 20 . . . . . 800 W
MCA 30 . . . . . 1100 W
MCA 50 . . . . . 1800 W

DIMENSIONS (heights include feet)

MCA 20 . . . . . 7-5/8″ (19.4 cm) High x 17-1/4″ (43.8 cm) Wide x 12-1/4″ (31 cm) Deep
MCA 30 . . . . . 7-5/8″ (19.4 cm) High x 17-1/4″ (43.8 cm) Wide x 12-1/4″ (31 cm) Deep
MCA 20 / 30 . . . . . Rack-mounting: 4 rack units, without feet
MCA 50 . . . . . 7-5/8″ (19.4 cm) High x 17-1/4″ (43.8 cm) Wide x 17-1/2″ (44.5 cm) Deep

WEIGHT (unpacked)

MCA 20 . . . . . 35 lb (16 kg)
MCA 30 . . . . . 41 lb (18.5 kg)
MCA 50 . . . . . 61 lb (27.5 kg)

PVA 2 | 5 | 7

INPUTS

PVA 2 . . . . . 2 Single-ended, 1 Relay Trigger (3.5-mm Mono Jack)
PVA 5 . . . . . 5 Single-ended, 1 Relay Trigger (3.5-mm Mono Jack)
PVA 7 . . . . . 7 Single-ended, 1 Relay Trigger (3.5-mm Mono Jack)

OUTPUTS

PVA 2 . . . . . 2 Pairs Speaker Binding Posts, 1 Relay Trigger (3.5-mm Mono Jack)
PVA 5 . . . . . 5 Pairs Speaker Binding Posts, 1 Relay Trigger (3.5-mm Mono Jack)
PVA 7 . . . . . 7 Pairs Speaker Binding Posts, 1 Relay Trigger (3.5-mm Mono Jack)

SWITCHES

Front Panel . . . . . Power On/Off
Rear Panel . . . . . 3 On/Off Modes (Trigger, Manual, Auto)

THD + N . . . . . 0.002% at 1 kHz, 0.03% at 20 kHz (125 W into 8 Ω)

POWER OUTPUT

(Continuous RMS, 20 Hz to 20 kHz, <1.0% THD)

Impedance	8 Ω		4 Ω		2 Ω	
# of Channels Driven	1	All	1	All	1	All
PVA 2, PVA 5, PVA 7	125 W	105 W	200 W	140 W	300 W	—

HEADROOM . . . . . 1.25 dB (8 Ω), 2.13 dB (4 Ω)
POWER BANDWIDTH . . . . . 10 Hz to 80 kHz (+0 -3 dB) (125 W at 8 Ω)
FREQUENCY RESPONSE . . . . . 20 Hz to 20 kHz (+0 -0.20 dB), 5 Hz to 100 kHz (+0 -2.5 dB)
INPUT SENSITIVITY . . . . . 1.12 Vrms in for 125 W into 8 Ω
INPUT IMPEDANCE . . . . . 10 kΩ
DAMPING FACTOR . . . . . 200 at 1 kHz (ref. 8 Ω)
S/N RATIO . . . . . 122 dB, A-weighted (ref. 125 W)
CHANNEL SEPARATION . . . . . >65 dB (100 Hz to 10 kHz)
VOLTAGE GAIN . . . . . 29 dB
SLEW RATE . . . . . 28 V/µs

POWER REQUIREMENTS

Supply Voltage . . . . . 105 to 130 V, 60 Hz
Power Consumption (at maximum power output) (8 Ω load)
PVA 2 . . . . . 500 W
PVA 5 . . . . . 1125 W
PVA 7 . . . . . 1500 W

DIMENSIONS (heights include feet)

PVA 2 . . . . . 5-7/8″ (14.9 cm) High x 17-1/4″ (43.8 cm) Wide x 11″ (28 cm) Deep
PVA 5 . . . . . 5-7/8″ (14.9 cm) High x 17-1/4″ (43.8 cm) Wide x 13-1/4″ (33.5 cm) Deep
PVA 2 / 5 . . . . . Rack-mounting: 3 rack units, without feet
PVA 7 . . . . . 5-7/8″ (14.9 cm) High x 17-1/4″ (43.8 cm) Wide x 16-3/8″ (42 cm) Deep

WEIGHT (unpacked)

PVA 2 . . . . . 26 lb (12 kg)
PVA 5 . . . . . 36 lb (16.5 kg)
PVA 7 . . . . . 47.5 lb (21.5 kg)

Audio measurements were performed with an Audio Precision System Two @ 120 VAC. Specifications and/or features are subject to change without notice as design improvements are incorporated.

“WARNING: ANTHEM GEAR MAY BE ADDICTIVE”

– Eric Hetherington, GoodSound!

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