

CD 1 ▶

PRE 1P ▶

PRE 2L ▶

INT 2 ▶

AMP 1 ▶

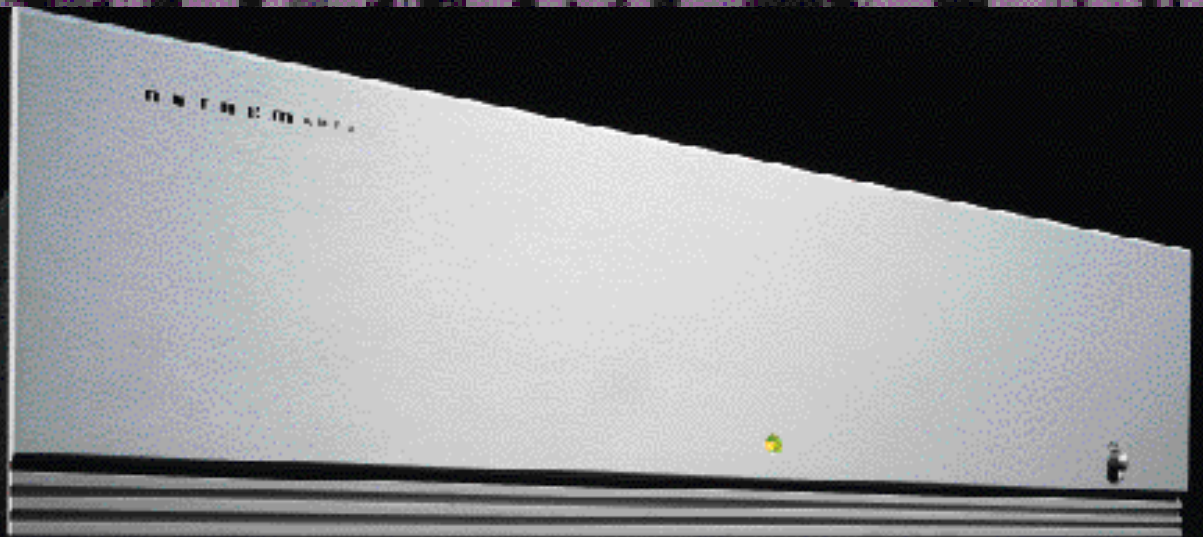
AMP 2 ▶

Amp 2

"It's refreshing to see a company focus in on details like the cosmetics and symmetry of the front panels, first rate packaging set up instructions, quality support materials, and, of course, high performance music playback. ...if you become a member of the Anthem club, you'll smile every time you look at your equipment."

"Anthem just sounds right. No matter what makes them tick, these products were made to enrich our lives with glorious music."

*- Michael Fuschi
Audio Revolution Online Magazine, May 1998*



AMP 2

Stereo Hybrid Power Amplifier - 200 watts/ch



value without equal performance beyond expectations

Developed as the mate to our award-winning PRE 1L and PRE 2L preamplifiers, the AMP 2 combines an all new hybrid design with a robust, regulated power supply, sophisticated circuit topology, conservative operating parameters and efficient industrial design practices, into one uncompromising, yet affordable, stereo power amplifier product. The sonic result is an amplifier which is both fast, and tonally neutral with the real power and control to adequately drive even the most demanding speakers.



All Anthem products are available with either black or silver faceplates.

Introducing ANTHEM's newest & most powerful amplifier - a high power hybrid design combining the musicality and finesse of vacuum tubes, with the solidity and control of solid-state. This next generation product is uniquely capable of providing music enthusiasts with extremely high value, and unprecedented sonic performance, which successfully merges the strengths of both technologies.

Technical Overview

This 31dB gain design is comprised of 4 stages. First, a vacuum tube buffer and phase splitter are used to provide a high input impedance as well phase inversion for bridged mono configuration. Next, a constant current sourced, double differential cascode input stage topology was chosen due to its better balance between both halves of the input stage, how it aids in power supply ripple rejection and because of its excellent CMRR - all which combine to offer a very linear design, before feedback. Third, a high current, Class A transconductance/driver stage was chosen because of its drive capability and excellent slew characteristics. Lastly, this is coupled to a cascode configured bipolar output stage, utilizing 12 Motorola 150 watt devices per channel. Overall, this amp has an unusually low amount of negative feedback due to its intrinsic linearity and inherently low distortion open loop characteristics.

Design Features

- Hybrid design
- Two tube input stage (mil-spec 6922's)
- Solid-state driver stage
- Bi-polar transistor output stage (Motorola devices)
- >200 watts/ch into 8 ohms; >300 watts/ch into 4 ohms
- Bridgeable into mono (over 600 watts)
- 1.2kVA toroidal power transformer

Why settle for a product which compromises one sonic aspect for the other. You can have the best of both worlds with ANTHEM's next generation products... a sublime combination of both power and finesse which audiophile music lovers have long been searching for, at a price never before thought possible!

Specifications

(AC line set at 117V 60Hz)

CD 1 ▶

INTRINSIC JITTER	< 140ps RMS measured over a bandwidth of 10Hz-40kHz
POWER SUPPLY	EI - Laminate power transformer featuring 9 stages of power supply regulation
TRANSPORT MECHANISM	Sony (6 pack Vertical Changer)
D/A CONVERTER	Dual Burr-Brown PCM 1702P
TUBE COMPLEMENT	1-6922/E88CC in a high speed output buffer configuration
ANALOG OUTPUT	1- pair single ended RCA
DIGITAL OUTPUT	1- AES/EBU on XLR male connector 1- S/PDIF Co-Ax on RCA connector

INFRA-RED OUTPUT	1 -via 3.5mm stereo jack
HD CD FILTER/DECODER	Pacific Microsonics - PMD 100
FREQUENCY RESPONSE	5Hz-20Hz \pm .25dB
"A" WEIGHTED S/N RATIO	>-115 dB from 10Hz-20kHz
CROSS TALK	-75dB @ 10kHz (>-65dB from 20Hz-20kHz)
THD	<.01% from 10Hz-20kHz
MAX. OUTPUT LEVEL	Approx. 2 Volts
DIMENSIONS	19" Wide x 13" Deep x 5.25" High (48 cm x 33 cm x 13 cm)
NET WEIGHT	24 lbs (11kg) - unpacked

PRE 1P ▶

FREQUENCY RESPONSE	Phono Input: \pm 0.5dB of RIAA 20Hz to 20kHz
HARMONIC DISTORTION (THD+N)	<0.35% at 1V RMS at line output, 20Hz to 20kHz (typically <0.15% at midband)
I.M. DISTORTION (SMPTE)	Line output <0.1% at 1V
GAIN	RMS: 48dB @ 1kHz
INPUT IMPEDANCE	47K on Phono Input : 100pF
OUTPUT IMPEDANCE	520ohms. Recommended load 50K-100K ohms and 100pF (20K ohms minimum, 1000pF maximum)
RATED OUTPUT	1V RMS 10Hz to 85kHz main outputs (Maximum 44V RMS output at 0.5% THD at 1kHz into 100K ohm load with 1.7V RMS high level input)

CHANNEL SEPARATION	< -65dB Below 1V @ 20kHz
PHASE POLARITY	Non-inverting
NOISE	-72dB IHF "A" Weighted Ref, 0.5V RMS Out, Shorted Input
TUBE COMPLEMENT	Tube Audio Circuit: 2 - 6922/E88CC, 2-12AT7/ECC81
POWER REQUIREMENTS	120VAC 50/60Hz (Export 100/220/240VAC 50/60Hz) 36 VA maximum
DIMENSIONS	19" Wide x 11" Deep x 5.25" High (48 cm x 28 cm x 13 cm)
NET WEIGHT	17.5 lbs (8 kg) - unpacked

PRE 2L ▶

INPUTS (6)	CD, Tuner, Aux 1, Aux 2/Phono, Tape, SSP
OUTPUTS (4)	Tape, Power Amplifier, 1/4" Stereo Headphone Jack
CONTROLS (3)	Input Select, Balance, Volume
SWITCHES (5)	SSP, Tape/EPL (External Processor Loop), Mono/Stereo, Mute/Operate, Power On/Off
FREQUENCY RESPONSE	2 Hz to 130 kHz -0.5 dB; > 250 kHz -3.0 dB at 1VRMS output < 0.1% from 20 Hz to 20 kHz
THD & N (Output at 1V RMS)	Selectable, 24, 16 & 8dB @ 1kHz
GAIN	40k ohms
INPUT IMPEDANCE	<135 ohms @ 1kHz, all gain settings.
OUTPUT IMPEDANCE	
RATED OUTPUT	1 VRMS

MAXIMUM OUTPUT VOLTAGE	30 VRMS at 1% THD
NOISE	< 80 μ V unweighted wideband noise* Approx. 60 μ V IHF A-weighted noise -92 dB A-weighted below a 1 VRMS output > -60dB @ 1kHz relative to 1VRMS output
STEREO SEPARATION (Crosstalk)	
TUBE COMPLEMENT	4 - 6922 (6DJ8 types)
FUSE REQUIREMENTS (1)	.5 A slow-blo (100-120VAC countries), .25A slow-blo (220-240VAC countries)
POWER REQUIREMENTS	40VA Maximum, 100-120VAC 60Hz (Export 220-240VAC 50/60Hz)
DIMENSIONS	19" Wide x 11" Deep x 5.25" High (48 cm x 28 cm x 13 cm)
NET WEIGHT	20 lbs (9 kg) - unpacked

AMP 2 ▶

POWER OUTPUT	200 watts per channel continuous both channels driven, into 8 Ohms 20Hz to 20kHz with < .05% THD+N 300 watts per channel continuous both channels driven, into 4 Ohms 20Hz to 20kHz with < .1% THD+N >600 watts/ch (8 ohms) - bridged mono mode .05% at rated power
IMD	
POWER BANDWIDTH	3Hz to 180kHz (-3 dB points)
THD+N	.05% at rated output into 8 ohms .1% at rated output into 4 ohms
INPUT SENSITIVITY	1.1V for Rated Power
INPUT IMPEDANCE	100 Kohm

DAMPING FACTOR	200 on 8 Ohm tap
HUM AND NOISE	-101 dB below rated power IHF A-weighted
VOLTAGE GAIN	31.3 dB
RISE TIME	< 2.0 μ Sec.
SLEW RATE	100 V/ μ Sec.
POWER REQUIREMENTS	100-120VAC 50/60Hz (Export 220-240VAC 50/60Hz) 1100 VA maximum
TUBE COMPLEMENT	2-6DJ8/6922
DIMENSIONS	19" (48 cm) W x 5.25" (13.5 cm) H x 16" (50 cm) D
NET WEIGHT	55 lbs. (25 kg) - unpacked

INPUTS (6)	CD, Tuner, Aux 1, Aux 2/Phono, Tape, SSP
OUTPUTS (4)	Tape, Preamplifier, Main Power Amplifier, 1/4" Stereo Headphone Jack
CONTROLS (3)	Input Select, Balance, Volume
SWITCHES (5)	SSP, Tape/EPL (External Processor Loop), Mono/Stereo, Mute/Operate, Power On/Off
TUBE COMPLEMENT	2-6DJ8/6922
POWER REQUIREMENTS	100-120VAC 60Hz (Export 220-240VAC 50/60Hz) - 400VA
DIMENSIONS	19" (48 cm) W x 5.25" (13.5 cm) H x 16" (50 cm) D, Knobs extend 3/4" (1.9 cm) forward of panel
NET WEIGHT	38 lbs, (17.2 kg) - unpacked

INTEGRATED AMPLIFIER SPECIFICATIONS

RATED POWER	90 Watts (25.5Vrms) into 8 ohms - continuous; 145 Watts (23Vrms) into 4 ohms; both channels driven 20Hz to 20kHz @ < 1% THD&N
FREQUENCY RESPONSE	-0.5dB 20Hz to 35kHz (@ 1W); -3.0dB 10Hz to 95kHz (@ 1W)
SIGNAL TO NOISE RATIO	-95dB (A-weighted ref 80W rated power); -90dB (Unweighted ref 80W rated power)
THD&N	0.1% 1kHz @ rated power , 0.5% 30Hz to 15kHz @ rated power , 1% 18Hz to 23kHz @ rated power
PHASE	Non Inverting
INPUT IMPEDANCE	40k ohms (Line level inputs)
GAIN	39dB
SENSITIVITY	280mV input for rated power, 8 ohms (Volume control @ maximum)

PREAMPLIFIER SPECIFICATIONS

(Line Level Inputs to Pre Outputs)

INPUT IMPEDANCE	40k ohms (line level inputs)
OUTPUT IMPEDANCE	150 ohms (min. required load: 10k ohms)
FREQUENCY RESPONSE	-0.5dB 20Hz to 90kHz, -3.0dB 1Hz to 200kHz
SIGNAL TO NOISE RATIO	-90dB (Unweighted ref 1V @ Pre Out); -95dB (A-weighted ref 1V @ Pre Out)
THD&N	0.01% 10Hz to 50kHz (Ref 1V @ Pre Out)
PHASE	Non Inverting
GAIN	15dB (5.7x)

POWER AMPLIFIER SPECIFICATIONS

(SSP Input(s) to Main Speaker Output)

RATED POWER	90 Watts (25.5Vrms) into 8 ohms - continuous; 145 Watts (23Vrms) into 4 ohms; both channels driven 20Hz to 20kHz @ < 1% THD&N
FREQUENCY RESPONSE	-0.5dB 10Hz to 40kHz (1W); -3.0dB 15Hz to 100kHz (1W);
SIGNAL TONOISE RATIO	-100dB (A-weighted ref 80W rated power); -90dB (Unweighted ref 80W rated power)
THD&N	0.1% 20Hz to 20kHz @ rated power ;
PHASE	Polarity Non-inverting
INPUT IMPEDANCE	19k ohms (Power Amplifier Inputs)
DAMPING FACTOR	100 @ 8 ohms
GAIN	24dB (16x)
SENSITIVITY	1.6VRMS input for rated power

POWER OUTPUT	40 watts per channel continuous both channels driven, into 4 or 8 Ohms (user selectable), 20Hz to 20kHz with 1% THD. Typical power at clipping (1% THD @ 1kHz) 55 watts/ch.	HUM AND NOISE	-92 dB below rated power unweighted; -100 dB below rated power IHF A-weighted
IMD	1% at rated power, SMPTE 4:1 method	VOLTAGE GAIN	22.8 dB
POWER BANDWIDTH (40 WATT)	10Hz to 65kHz (-3 dB points) 15Hz to 33kHz (-0.5 dB points)	RISE TIME	2.8 uSec
FREQUENCY RESPONSE (1 WATT)	10Hz to 75kHz (-0.5 dB points) 2Hz to 105kHz (-3 dB points)	POWER SUPPLY	57 Joules
THD+N	1% at rated power, 20Hz to 20kHz both channels driven. Typically .05% 1 kHz at 1 watt level	ENERGY STORAGE	
INPUT SENSITIVITY	1.3V for Rated Power	POWER REQUIREMENTS	100-120VAC 50/60Hz (Export 220-240VAC 50/60Hz) 355 VA maximum
INPUT IMPEDANCE	100 Kohm	TUBE COMPLEMENT	2-12AU7A/ECC82, 1-12AX7/ECC83, 4-EL34/6CA7 (2 matched pairs)
DAMPING FACTOR	14 on 8 Ohm tap	DIMENSIONS	19" (48 cm) W x 5.25" (13.4 cm) H x 12" (30 cm) D
		NET WEIGHT	40 lbs. (18 kg) - unpacked

Note: All measurements performed with an Audio Precision System Two test center.
Due to Sonic Frontiers desire to continually improve its products, specifications are subject to change without notice.



LINE 1
PREAMPLIFIER



LINE 2
PREAMPLIFIER



LINE 3
PREAMPLIFIER



POWER 1
STEREO AMPLIFIER



POWER 2
STEREO AMPLIFIER



CD 1 CD Changer



Pre 2L Linestage Preamp



Pre 1P Phono Stage



Integrated 2 Hybrid Integrated Amplifier



Amp 1 Stereo Power Amplifier



Amp 2 Hybrid Stereo Power Amplifier



SFCD 1
CD PLAYER



TRANSPORT 3
CD TURNTABLE

THE KEY TO HIGH-END AUDIO
DESIGNED & MANUFACTURED BY SONIC FRONTIERS



POWER 3
MONO AMPLIFIERS



PHONO 1
PHONO STAGE



PROCESSOR 3
DIGITAL PROCESSOR

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