

## Specifications

		P7000S	P5000S	P3500S	P2500S	
Output Power	8Ω/STEREO	750W+750W	525W+525W	390W+390W	275W+275W	
	1kHz 4Ω/STEREO	1100W+1100W	750W+750W	590W+590W	390W+390W	
	THD+N=1%	8Ω/BRIDGE	2000W	1500W	1180W	780W
	8Ω/STEREO	700W+700W 650W+650W (230V)*	500W+500W	350W+350W	250W+250W	
	20Hz-20kHz	4Ω/STEREO	950W+950W	700W+700W	450W+450W	310W+310W
THD+N=0.1%	8Ω/BRIDGE	1900W	1400W	900W	620W	
	1kHz	2Ω/STEREO	1600W+1600W	1300W+1300W	1000W+1000W	650W+650W
20mS nonclip	4Ω/BRIDGE	3200W	2600W	2000W	1300W	
	halfpower	10Hz-40kHz (THD+N=0.5%)				
THD+N	20Hz-20kHz, half power	≤0.1%				
Intermodulation Distortion	60Hz: 7kHz, 4:1, half power	≤0.1%				
Frequency Response	Po=1W, RL=8Ω	0dB, +0.5dB, -1dB f=20Hz-50kHz				
Channel Separation	half power Att.max	RL=8Ω input 600Ω shunt	≥70dB 1kHz			
Residual noise Att. min	DIN AUDIO	≤-70dB				
S/N ratio	DIN AUDIO	104dB	103dB	102dB	100dB	
Damping Factor	RL=8Ω 1kHz	≥350		≥200		
Sensitivity @8Ω	Att.max	+8dB	+6dB	+4dB	+3dB	
Voltage Gain	Att.max	32.1dB				
Input Impedance		30KΩ (balance) 15kΩ (unbalance)				
Controls	Front Panel	POWER switch (push on/push off) attenuator (31 position) × 2				
	Rear Panel	MODE switch (STEREO/BRIDGE/PARALLEL) FILTER switch (SUB WOOFER/LOW CUT/OFF) × 2 FREQ.CONTROL (25Hz-150Hz) × 2 YAMAHA SPEAKER PROCESSING switch (ON/OFF)				
Connectors	Input	XLR-3-31 type/ch 1/4" TRS/ch				
	Output	SPEAKON, 5way bidding post, 1/4" phone/ch				
Indicators	POWER	× 1 (Green)				
	PROTECTION	× 1 (Red)				
	TEMP	× 1 (Red) heatsink temp ≥85°C				
	YS PROCESSING	× 1 (Yellow)				
	SIGNAL CLIP	× 2 (Green) × 2 (Red)				
Load Protection		POWER switch on/off mute DC-fault power supply shutdown (P7000S/5000S) DC-fault power output cut (P3500S/2500S)				
Amplifier Protection		Thermal (heatsink temp ≥90°C) VI limiter (RL ≤ 1Ω)				
Limiter Circuit		comp. :THD ≥ 0.5%				
Cooling		Dual variable-speed fan	Single variable-speed fan			
Power Requirements		US and Canadian model	120V 60Hz			
		European model	230V 50Hz			
		Australian model	240V 50Hz			
Idle Power Consumption		35W	35W	30W	25W	
1/8 Power Consumption	(4Ω)	700W	550W	450W	320W	
Maximum Power Consumption	(4Ω)	4000W	3000W	2000W	1600W	
Dimensions (W × H × D)		480 × 88 × 456 mm (18-7/8" × 3-7/16" × 17-15/16")				
Weight		12kg (26.5 lbs.)	12kg (26.5 lbs.)	15kg (33.1 lbs.)	14kg (30.9 lbs.)	

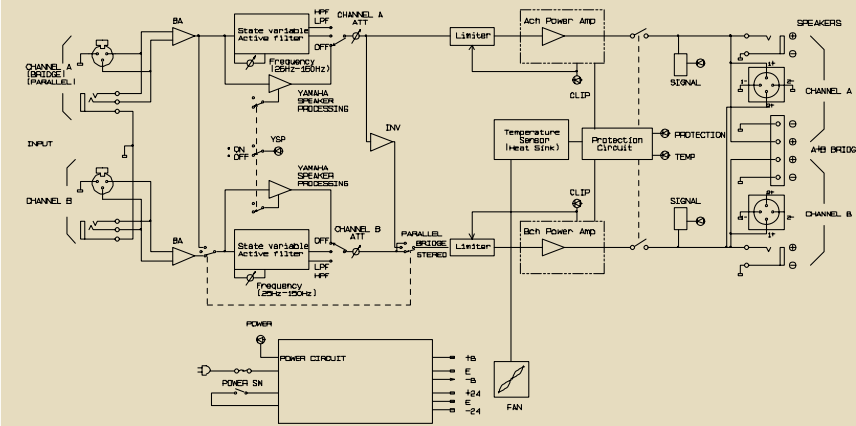
• 0dB=0.775V • half power=1/2 output power  
\*Output power into 8Ω stereo (20Hz-20kHz) on the P7000S 230V model is 650W + 650W.

● Specifications and appearances are subject to change without notice.



This document is printed on chlorine-free (ECF) paper with soy ink.

## Block Diagram



- All components used in this device have passed Yamaha's stringent quality control.
- This device is designed to comply with the safety standards of, and is certified by, the following organizations. (UL, CSA, SEMKO...)
- Yamaha has gained accreditation from NVLAP\* as an in-house testing facility for electromagnetic compatibility and telecommunications.

\* The NVLAP is the National Voluntary Laboratory Accreditation Program that is administered by the United States' NIST (National Institute of Standards and Technology) which, based on the ISO Guide 25, strictly checks the overall quality systems, the facilities and its employees.



YAMAHA Web Site

<http://www.yamaha.co.jp/english/>  
<http://www.yamaha.co.jp/product/proaudio/homeenglish/>



CREATING 'KANDO' TOGETHER

'KANDO' ... Inspiring the Heart and Spirit.

LPA476 030330 Printed in Japan

# YAMAHA P SERIES POWER AMPLIFIERS



## P7000S/P5000S P3500S/P2500S





# Robust Power Output, Superior Audio Quality, Efficient Operation, and Excellent Cost Performance

Yamaha's audio engineers have designed the new P-Series Power Amplifiers as perfect mates to the popular Club Series loudspeakers. To achieve this, they provided them with big power output that matches the power handling capabilities of the Club Series Speakers, and equipped them with YS Processing (Yamaha Speaker Processing) to deliver a signal that is tuned to the needs of these loudspeakers.

Big power output is evident in their power ratings, from 3200 watts for the P7000S to 1300 watts from the P2500S, operating at 4-ohms bridged. This power output also best matches the power handling capabilities of our Club Series Speakers. So, if you want to drive a pair of Club S115s with 500-watt program ratings, the P5000S, with 500-watts per channel into 8-ohms, makes it the perfect choice.

Further matching is found in Yamaha's proprietary YS Processing. Each model is equipped with this specially designed circuit that delivers output tailored to the specific response of the Club Series speakers for superior audio quality and performance. All models feature both XLR and 1/4-inch TRS inputs and Neutrik Speakon™, phone plug, and 5-way binding post outputs to make connections quick and easy.

Other features include Yamaha's exclusive EEEngine technology which delivers high performance with exceptional efficiency, sweepable high and low pass filters for optimizing output to any loudspeakers, compact and durable 2U chassis, and variable speed cooling fans.



P7000S Front Panel

## Big Output Power Delivered with Great Efficiency

The new P-Series Power Amplifiers deliver a robust amount of professional-quality power in a wide range of configurations designed to suit most any need. In a 4-ohm bridged application, the P7000S delivers 3200 watts, the P5000S delivers 2600 watts, the P3500S 2000 watts, and the P2500S 1300 watts.

Those on a budget will find the lineup's high power output and affordable prices deliver higher quality without putting a strain on funds. Further savings are realized with extremely efficient operation utilizing Yamaha's exclusive EEEngine technology which keeps operational costs down by significantly reducing AC power consumption and heat generation.

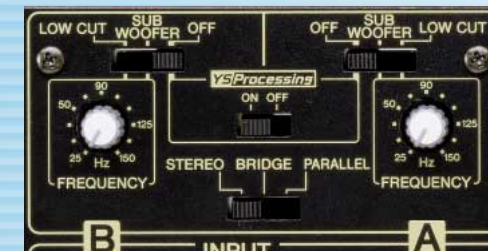


## The Perfect Match with Your Club Speakers

The new P-Series Power Amplifiers can be used with any loudspeaker system, but if you're using our Club Series, they will provide power and performance tailored to deliver maximum performance from your system. In an 8-ohm stereo application power output per channel on the P7000S is 700 watts (650



watts on the 230V model), the P5000S 500 watts, the P3500S 350 watts, and the P2500S 250 watts. This wide selection lets you choose the amplifier that best matches the power handling capabilities of your speaker system.



All four models are equipped with independent sweepable high and low pass filters on each channel so you can optimize output for subwoofer or full range systems to provide peak audio quality and performance from any speaker system you may be using.

## Light Weight Keeps Transport and Setup Easy

Look at the specifications and you'll notice that the P2500S and P3500S are respectably light in weight making transport and setup less strenuous. What's amazing though, is the comparison in weight per watt when you look at the P5000S and P7000S. The use of a switching power supply makes these two models very lightweight while maintaining superior audio quality.

## Flexible Connectivity

To provide the most flexible connectivity possible, all four models are equipped with

Neutrik Speakon™ output jacks, and 1/4-inch output jacks for each channel in addition to 5-way binding post. Channel inputs consist of both XLR and 1/4-inch TRS jacks.



\* Speakon is the registered trademark of Neutrik AG.

## Other Features

The new P-Series' industrial design delivers a refined and impressive look with deep blue faceplates bordered in silver trim, handles, and mounts. The chassis is specially designed to provide added durability and strength. Continuously variable-speed fans mounted internally on either side of the front panel offer quiet, efficient cooling. Comprehensive protection consists of power on/off muting, DC detection, thermal protection, current limiting, and a protective cover for the attenuators is also supplied.



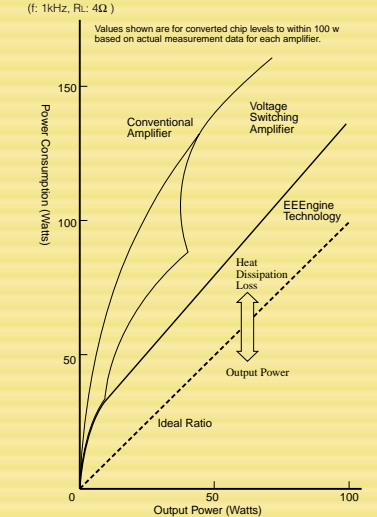
P7000S Rear Panel



## EEEngine

EEEngine (Energy Efficient Engine) Technology makes more efficient use of AC power by reducing power consumption and heat generation without degrading output power or sound quality. When power requirements are low, the system uses a highly efficient current buffer to transparently switch input power on and off as needed. As power requirements increase, an independently responding auxiliary power line supplies additional power as required. Output isn't compromised, as the auxiliary power line is driven by the power supply voltage, which maintains maximum output to the speaker load.

## Power Consumption Comparison



## YS Processing

With YS Processing (Yamaha Speaker Processing), you get direct compatibility with our popular Club Series loudspeaker systems. This special circuit optimizes output from the power amplifier to match the characteristics of Club Series speaker systems delivering a signal that is precisely what the speaker requires. With the YS Processing system, extra-smooth highs and enhanced low-frequency from your Club Series loudspeaker system is assured.