

# Amplifiers

## POWER AMPLIFIER



A new generation of Real Sound power amplifiers ready to be used under no less than the most critical conditions. The completely redesigned power amplifiers incorporate a whole range of new ideas and intelligent solutions for the most in operational safety, superb sound quality, highest reliability, excellent dynamic response and high backup power are what we expected when developing these new amplifiers and we weren't disappointed. Lowest possible distortion values could be realized by employing only highest quality components put to work by a sophisticated circuitry.

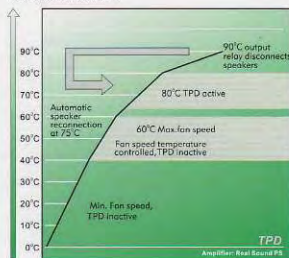
every ps (professional system) series amplifier employs a sophisticated high-headroom limiter circuit which becomes activated by means of several internal sensors.

### Temperature Protect Design

This is a specially developed temperature control system, effectively preventing shut-off of the amplifier caused by overheating should the heat sink temperature exceed 80°C; the TPD automatically activates the limiter. Initially, only the signal peaks are attenuated, so that the average loudness of the music signal is not affected.

The TPD circuit becomes only active when all built-in cooling measures fail to supply the amplifier with cooling air. Whenever the TPD control indicates limitation by overheating, the user should check his amplifier setup for sufficient cooling air supply.

Heat sink Temperature



# PS Series

## Real Sound Power Amplifiers

-Our truly revolutionary TPD circuit automatically reduces the output power whenever the amplifier reaches a critical temperature. With this new circuit, annoying amplifier shut-offs because of overheating are forever a thing of the past.

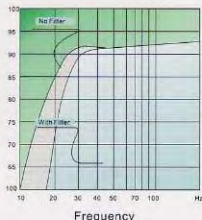
### Internal Output Impedance Ri

The performance of music signal indicates that, signal current needed for bass is far above that needed for alto and high pitch. To realize maximum current output of low frequency signal, we must try to minimize the internal output impedance Ri of amplifier. Using parallel tube array, the PS Serial Amplifier is characterized by CXtremely low internal output impedance. The CXtremely low internal output impedance naturally provides super-large damping coefficient, therefore, try to attenuate internal output impedance is the crux for achieving superfine bass tone.

### Diagram 1

#### Transducer Shift:

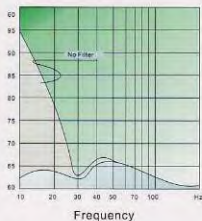
This Diagram displays the protective role of 30 Hz (18 Hz fold sound interval oblique wave rate) low rate CXcising filter. In giving performance, the CXcising filter effectively limits the diffuser of low frequency transducer (bass horn) to move forward and backward within a safe sphere. The dotted line in the diagram marks the damage threshold for the diffuser move, and CXcess of the damage threshold may cause the voice coil blocked beyond magnetic gap and probably not able to be reset. Lack of protection by filter, bass horn is easy to be propelled to CXceed the threshold when in CXtra-low bass band. Through the filter, those bands are effectively confined to the safety sphere for diffuser move. Acoustical Response on the Axle.



### Diagram 2

#### Acoustical Response on the Axle:

With the action of filter, futile and potentially damaging super bass is removed, also with frequency response curve proved.



Total amount control the metals module produce the car.

The sophisticated circuit design and the use of specially developed filters guarantee that all PS series amplifier comply with the following standards.

### More Features:

- Two temperature-controlled vari-speed ventilators for strong airflow
- Switchable for stereo-, mono- or bridge-mode.
- Balanced inputs (XLR/phone jack) with parallel XLR outputs for convenient amplifier linking.
- Speakon output sockets, additional speakon output for bridge mode.
- Volume control for each channel on front panel.
- LED indicators for OK/Protect, input signal, NLR active and TPD active.
- High-efficiency output power stage for low internal heat dissipation.
- Strong, oversized power supply with toroidal transformer.
- Protection circuits against short and open outputs, mismatched loads, r.f. interference, high-frequency oscillation, d.c. Output voltage and over temperature.
- Only 2 rackspace height units
- Rugged steel chassis
- 3 years full warranty

## Real Sound Power Amplifiers

-High-quality components, innovative circuit design and, not least, excellent workmanship guarantee for extraordinary reliability and high backup power.

## Real Sound Power Amplifiers

-See your authorized Real Sound dealer for full warranty disclosure and details. For customers outside of the USA, please contact your authorized Real Sound distributor for warranty information

# Amplifiers



## Specifications

Model	PS-3.5x/PS-3.5M	PS-5.0x/PS-5.0M	PS-8.0x/PS-8.0M
RMS output power into 8ohm	2x350w	2x500w	2x800w
RMS output power into 4ohm	2x500w	2x750w	2x1200w
RMS output power into 2ohm	2x700w	2x1000w	2x1600w
RMS output power into 8ohm, bridge mode	1400w	2000w	2400w
Input sensitivity constant gain 33db for full Output(2x4ohm stereo)	0.775v(0dB)	0.775v(0dB)	0.775v(0dB)
Frequency response(stereo 4ohm@1w ref 1khz-3dB)	10Hz-50KHz	10Hz-50KHz	10Hz-50KHz
Total harmonic distortion (@10w ref 20hz-1khz)	<0.01%	<0.01%	<0.01%
Total harmonic distortion (@10w ref 10hz-20khz)	<0.02%	<0.02%	<0.02%
Inter modulation distortion	<0.01%	<0.01%	<0.01%
Damping factor(@1khz,8ohm)	>700	>700	>700
Convert rate	>45/μ secretary	>45/μ secretary	>45/μ secretary
Controller front	ac ON@OFF, CHA,CHB gain		
Controller rear	Stereo, Mono Bridge ON&OFF, Wiring terminal		
Work Status Indication			
Power	ok		
Signal	ok		
Clip	ok		
Temp	ok		
Dc	ok		
Protect Circuit			
On soft	ok		
On load protector	ok		
Subsonic and dc protector	ok		
Sonic protector	ok		
High temperature	ok		
Aalocc	ok		
Vclt	ok		
Power protector	ok		
Output protector	ok		
Connectors input	1/4" phone jack/xlr(famale)compound socket, parallel XLR male per input		
Connectors output	1 x 4-pole-speakon per channel /1x4-Pole-Speakon fo bridge mode		
Cooling	2 vari-speed fans/convection cooling/front panel air exit		
mains supply voltage	115/230 V(Region variety) AC 50/60Hz		
Dimension(wxhxd)	545 x 185x545mm		
Weight	23kg	26kg	30kg

Specifications