OPERATING MANUAL

PRH-4240 - RH-4350 POWER AMPLIFIER

artsound
we speak sound

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1. WARNINGS AND SAFETY

- To prevent fire or electric shock, do not expose this device to rain or moisture.
- Do not repair any parts inside the unit, but leave all repairs to qualified service personnel.
- As long as the mains cable of the machine is connected to a wall socket, the machine is live, even if the machine is switched off.
- Do not operate the device for a long time if the sound is distorted.
- Do not block the ventilation openings of the device.

2. GENERAL DESCRIPTION

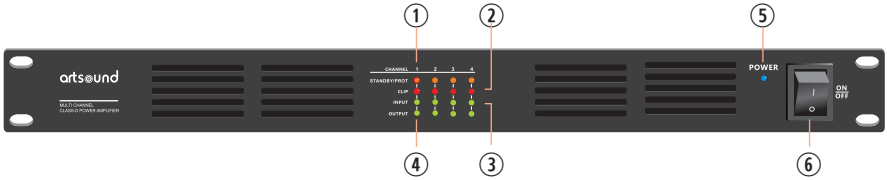
The PRH power amplifiers are built on Class D technology. With minimal power consumption, less heat generation and a more compact size than conventional analogue amplifiers.
The PRH power amplifiers contain four independent amplification channels, each rated at 240W (PRH-4240) and 350W (PRH-4350) respectively. For each channel, there is a balanced line input via a Phoenix connector, a separate input gain control and an optional high pass filter.
Both 100V and low impedance speaker outputs are available.
This allows the PRH amplifiers to be used in most situations.
A standby mode is automatically activated when no input signal is detected for more than 1 minute.
Furthermore, there is a built-in protection mode that offers protection in case of short-circuit, overload or excessive temperature.
The coloured LEDs on the front panel provide an easy overview of the operation. The amplifiers operate on an AC voltage of 115V to 230V and can also be supplied with DC24V emergency power.

3. FEATURES

- Switching power technology digital power amplifier
- Class-D PA power amplifier of minimum power consumption
- Less rack space and less heat generation
- Four channel power amplifier into 19” rack mount unit
- Rated power output at 120W, 240W, 350W to 500W by four channels
- Four channel separate speaker outputs 4-16Ω/100V
- Balanced XLR input by phoenix connector for four channels
- Each input with separate gain control.
- Each four channel with high-cut filter.
- Built-in auto standby feature to save power consumption
- Separate four channel indicators for protection, clip, input and output
- Complete short circuit, overload, high temp, clip and DC protection
- Wide AC input from 110V to 230V

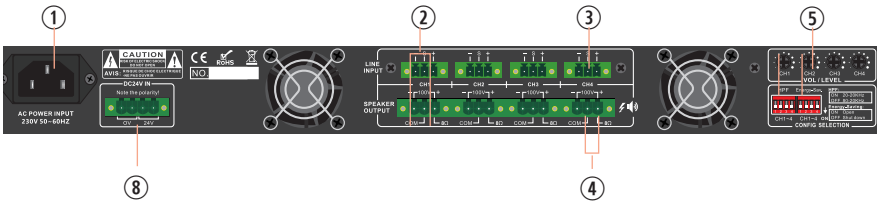
4. NOMENCLATURE AND FUNCTIONS

4.1 FRONT PANEL



1. **Protection**
   The protection mode kicks in in case of a short circuit or overload on the output, a DC error or an internal overheating issue. If this is the case, the protection indicator will be permanently lit (orange).
2. **Clipping**
   In case the input signal is too high, the amplifier is literally driven to its limits and hence can no longer reproduce the signal undistorted. When this is the case for any channel, this will be indicated by the clip indicator (red). To resolve, just turn down the input gain of the affected channel a slight bit.
3. **Input**
   The input indicator will lit up (green) whenever there is an incoming signal detected for the respective channel.
4. **Output**
   The input indicator will lit up (green) whenever there is an outgoing signal for the respective channel and basically shows the amplifier is in its normal working state.
5. **Power**
   When the unit is powered, the power indicator will be permanently lit (blue).
6. **Power switch**
   The power switch is used to power on/off the PRH amplifier.

4.2 REAR PANEL



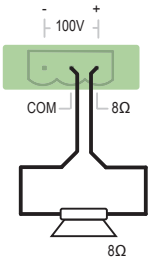
1. **AC power cord**
   The amplifier accepts an AC supply voltage from 115V to 230V, which makes it possible to use worldwide with the corresponding power lead.
2. **100V speaker output**
   This output connection must be used for a 100V speaker system. Only connect speakers to this that are compatible for 100V (with an internal transformer) and always respect the polarity of the connection (see further).
3. **3. Line input**
   For each channel there is a balanced line input by a phoenix terminal connector
4. **4. Low impedance speaker output**
   This output connection must be used for a low impedance (conventional, residential) speaker system. The rated impedance this amplifier can drive is 8Ω. Always respect the polarity of the connection (see further).
5. **Gain control**
   With the input gain control for each channel, it is possible to adjust the different input sources to match on the desired volume at the outputs.
6. **High pass filter**
   The high pass cut off filter can be enabled or disabled for each channel by a dipswitch.
7. **Standby**
   The automatic standby mode can be enabled or disabled for each channel by a dipswitch. Standby mode is automatically enabled when there is no signal on any input for more than one minute and is disabled immediately when any input signal is detected.
8. **DC 24V emergency power input**

5. SPEAKER CONNECTIONS

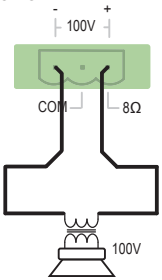
Before connecting speakers, disconnect the AC power cable. Note the proper connecting terminals as shown below. Make sure that the total impedance is not less than the rated impedance indicated.

- **Connecting 4-16Ω Speaker Systems**
  When connecting conventional 4-16Ω speaker systems, connect the speaker's positive (+) side to the terminal labeled 4-16Ω. Connect the speaker's negative (-) side to the terminal labeled COM.
- **Connecting High-Voltage Distributed Speaker Systems**
  When connecting a low-impedance (100V) speaker system in parallel, connect the speaker's positive (+) side to the terminal labeled 100V.
  Connect the speaker's negative (-) side to the terminal labeled COM.

FOR 8Ω LOW IMPEDANCE SPEAKER CONNECTION



FOR 100V SPEAKER WITH TRANSFORMER CONNECTION



6. TECHNISCHE KENMERKEN

Model	PRH-4240	PRH-4350
Description	Class-D Four Channel Power Amplifier	
Rated power output	4 x 240W	4 x 350W
Speaker outputs	8Ω & 100V	
Frequency response	L/H Cut OFF 20Hz-20KHz (+1/-2dB)	
	L/H Cut ON 70Hz-10KHz (+1/-3dB)	
Input	0.775V, 0dBu, balanced phoenix connector by four channels	
Input Impedance	10KΩ	
T.H.D	<0,1% (1KHz/-3dBv, 100 W)	
S/n ratio	> 80dB	
Crosstalk	> 60dB, 1KHz, Max output	
Power consumption	120W	1750W
Power Supply	AC input 110V-230V, 50-60Hz, DC24V emergency power input	
Dimension (mm)	482(b)x420(d)x44(h) mm	
Weight	9kg	9,5kg

10. WARRANTY CONDITIONS

2 year warranty from date of purchase. The warranty is limited to the repair of replacement of the defective material insofar as this defect is a result of normal use and the device has not been damaged. Artsound is not responsible for any other costs that ensue as a result of the defect (e.g. transport). For details, please consult our general terms and conditions of sale.

This product bears the selective sorting symbol for waste electrical and electronic equipment (WEEE). This means that this product must be handled pursuant to European Directive 2002/96/EC in order to be recycled or dismantled to minimize its impact on the environment.For further information, please contact your local or regional authorities.

CE I, House Of Music NV, hereby declare that the type of radio equipment ARTSOUND complies with Directive 2014/53/EU. The full text of the EU Declaration of Conformity can be found at the following internet address: http://www.artsound.be/en/support/downloads

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