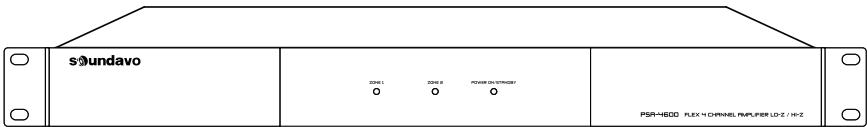




# PSA-4600 | 4 CHANNEL FLEXIBLE AMPLIFIER LO-Z / HI-Z



PSA-4600 is a extremely flexible Direct Drive 4-channel digital amplifier designed with the highest technology in materials and construction to provide excellent performance and audio quality in your installation. With sufficient edibility to meet the demands in residential or corporate environments that can be used in 4Ω or 8Ω in stereo mode, or bridge mode in Hi-Z 70V or 100V selectable. Each channel can provide up to 150W x 2 RMS of continuous power in 4Ω or 8Ω in stereo mode, can also be bridged to support up to 300W x 2 into 70V or 100V loads, ideal for Low-Z or High-Z residential and corporate commercial applications.

# DEAR CUSTOMER

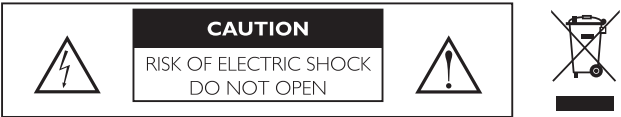
Thank you for purchasing this product. For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

## WARNING

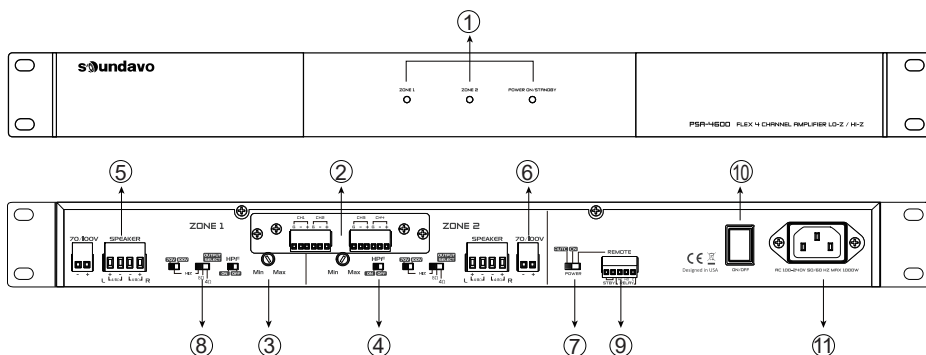
1. Do not expose this unit to water, moisture, or excessive humidity.
2. Do not install or place this unit in a built-in cabinet, or other confined space without adequate ventilation.
3. To prevent risk of electrical shock or fire hazard, due to overheating do not obstruct unit's ventilation openings.
4. Do not install near any source of heat, including other units that may produce heat.
5. Do not place unit near flames.
6. Only clean unit with a dry cloth.
7. Unplug unit during lightening storms or when not used for an extended period of time. A surge protector is strongly recommended.
8. Protect the power cord from being walked on or pinched, particularly at the plugs.
9. Use unit only with accessories specified by the manufacturer.
10. Refer all servicing to qualified personnel.

## CAUTION

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,  
DO NOT REMOVE COVER (OR BACK).  
NO USER-SERVICEABLE PARTS INSIDE.  
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



# FRONT/REAR PANEL FEATURES



- 1. POWER ON / STANDBY & ZONE LED:**  
GREEN indicates Power On. RED indicates Standby mode
- 2. AUDIO LINE INPUT:** 5 Pin Euro terminal, this input can be used either balanced or unbalanced
- 3. OUTPUT LEVEL:** Gain controls for both 4/8Ω or 70/100v adjust the sound level independently (Counterclockwise for minimum; clockwise for maximum). If necessary, use this control to set a maximum volume level in your system so that there are no distortions in the speakers due to excess power
- 4. HPF:** The high pass filter (HPF) that when activated cuts the frequencies below 80Hz. To activate this feature, simply change the selector switch to the "ON" position, to deactivate set the switch to "OFF" .
- 5. LO-Z SPEAKER OUTPUT:** Connect with 4 Ohm (or 8 Ohm) speakers and work in low-impedance select the switch between "4 Ω" or "8Ω" according to the impedance of the boxes installed on your system and connect them to the "OUTPUT 4Ω/8Ω " jack. When using this mode, the amplifier will work in Stereo Mode and the power on each channel in either 4Ω or 8Ω is 150W RMS
- 6. HI-Z SPEAKER OUTPUT:** Connect with 70V (or 100V) Constant-Voltage speakers directly and work in high-impedance select the switch

between "70V or 100V" according to the TAP selected in the boxes installed on your system and connect them to the "OUTPUT 70V/100V " jack. When using this mode, the amplifier will work in Bridge (Mono) Mode in which the predominant input channel is the "Left" and the power at its output, either at 70V or 100V, is 300W RMS.

Remembering that when using 70V or 100V lines, the sum of the power of the boxes must not exceed the maximum power of the amplifier. Failure to properly size can cause serious damage to the amplifier and/or the connected boxes

- 7. POWER SETUP SELECTION:**
  - AUTO position: The unit always Power ON, and will not going to Standby mode
  - ON position: The unit goes to Standby mode not go after 15 providing minutes of no signal sensing
- 8. OUTPUT SELECT SWITCH :** Select between the LO-Z Mode (4 or 8 Ohm) and HI-Z Mode (70V or 100V)
- 9. REMOTE CONTROL:** Provides remote control of the standby mode of the amplifier and the indication of standby status of the amp
- 10. POWER ON/OFF SWITCH:** To Turn On (or Off) the PSA-4600 amplifier
- 11. AC INPUT:** Accept 100 - 240 VAC, 50 - 60 Hz, 1000W Max

## FEATURE

- \* Full Single 19" Rack-Mount Design
- \* 4 Channels Model – 150W RMS per channel
- \* Stereo mode into 4-8 Ohm loads
- \* Bridged mode 300W x 2 output for 70V or 100V (Direct Drive)
- \* Power down after ~15 minutes of no signal and comply with Energy Star Power consumption limits of < 0.5W in standby
- \* RED LED (Front Panel) to indicated Standby mode is active
- \* Terminal Block analog audio inputs (4 Channel input)
- \* Selection for Power-On mode
- \* Switch for High Pass Filter
- \* Remote STANDBY control
- \* Amplifier status output
- \* Short circuit protection
- \* Overheating protection

## TECHNICAL SPECIFICATIONS

### Power Output:

-Stereo Mode (all channels driven)

150W x 4,  $8\Omega$  (31 V) RMS output (steady state), per channel @ < 1 % THD+N

150W x 4,  $4\Omega$  (22 V) RMS output (steady state), per channel @ < 1 % THD+N

-Bridged Mode (per bridged output pair)

300W x 2, 70V @ < 1 % THD+N

300W x 2, 100V @ < 1 % THD+N

(1/8 Rated Power, Run Time: continuous operation)

**Frequency Response:** 20 Hz - 20 kHz, +/- 2 dB @  $4\Omega$  Load

**Signal to Noise:** >90dB A WTD(20 Hz - 20 kHz)

**Input Sensitivity:** 1.23 V (+4 dBu)

**Gain Value:** 25 dB @  $8\Omega$

**Input Impedance:** >10k, balanced or unbalanced

**Maximum Input Level:** 12.3 V (+24 dBu)

**High Pass Filter:** 80 Hz

**Input Connectors:** 3 pin Euro terminal x 4

**Remote Connectors:** 5 pin Euro terminal

**Output Connectors:**

4 pin Euro terminal ( $4\Omega/8\Omega$ )

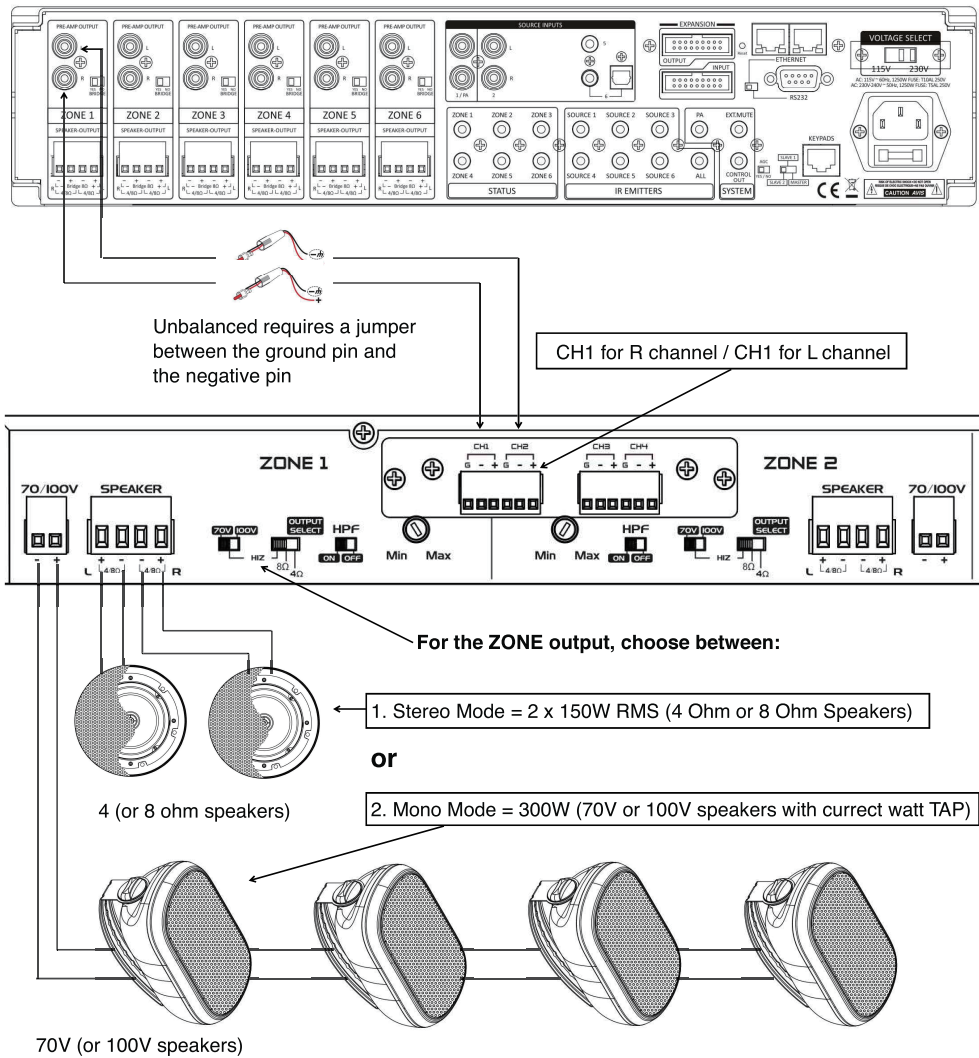
2 pin Euro terminal (70V/100V)

**Dimensions:** 434mm(W) x 237mm(D) x 44mm(H)

**Power Requirements:** 100 - 240 VAC, 50 - 60 Hz, 1000W Max.

# PSA-4600 AUDIO INPUT & SPEAKER OUTPUT CONNECTION APPLICATION EXAMPLE

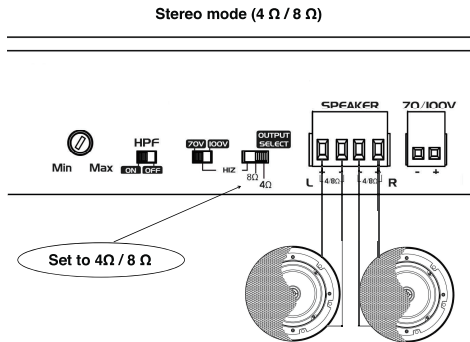
audio signal from the WS66i amplifier's "Preamp Out"



# SET UP YOUR LOUDSPEAKERS AND AMPLIFIER

## Stereo mode (4 $\Omega$ / 8 $\Omega$ )

1. Make sure the total, nominal impedance on each zone's speaker output equals either 4 or 8 ohm and set the channel DIP switch to the appropriate 4 or 8 ohm setting.
2. Add the rated power of the connected loudspeakers on the zone output impedance switch



## Mono mode (70V / 100V)

1. Connect your loudspeaker cable, in daisy-chain fashion, from the channel output to the 70 V or 100 V loudspeakers.
2. Set the transformer taps on the loudspeakers for the desired 70 V or 100 V power setting (figure shows the DIP switch set to 70 V and the transformer taps set to 25 W on the speaker)
3. Add these tap settings to get the maximum amount of power used on this output channel (25 W + 25 W = 50 W) from the 300W available
4. The high-pass filter (HPF) must be set to the ON position for each channel connected to 70V or 100V distribution line. An exception to this rule is when the channel is used with a dedicated 70V or 100V subwoofer, IF it is equipped with a transformer adequately rated to handle the maximum amplifier output power available.

