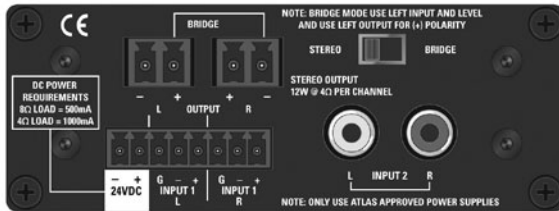




TSD-PA122G
2x12W Global Audio Amplifier





Description

The Atlas Sound TSD-PA122G is a reliable, cost-effective Ω stereo amplifier perfectly suited for almost any general amplification requirement. The unit is especially suited for adding sound reinforcement to small projector systems as it provides ample power to drive up to 8×8 loudspeakers in a classroom or boardroom application.

The TSD-PA122G features a balanced stereo phoenix style connector and unbalanced RCA input options with an output of 12W per channel at Ω or 24W bridge mono at Ω . Front panel gain controls provide adjustment for both left/right or bridged outputs and these removable knobs can easily be replaced with the included tamper-resistant security covers.

The TSD-PA122G is part of a full line of Atlas Sound Time Saving Devices. These compact (1.5" x 4" x 2.75") units are designed to solve some of the common audio system problems in the easiest, most efficient, and cost-effective way. All models are made from high quality components and include removable individual I/O connectors for quick and precise wiring, separate ground terminals for all I/Os assuring secured connections, and removable level controls that can be replaced with tamper-resistant security covers. The TSDs are highly efficient and meet most energy standards as one 24V DC power supply (available separately) can power multiple Atlas Time Saving Devices.

Features

12W per Channel into Ω
24W Bridged into Ω
(2) Balanced Inputs

- Dual RCA Inputs
- Removable Level Controls with Set-It-And-Forget-It Security Covers
- Peak Indicator per Channel
- Input Signal Indicator per Channel
- Cable Management System
- Multiple Mounting Configurations
- Separate Ground Connections
- Removable Phoenix Style I/O Connectors
- Meets Most Energy Standards
- Compact Chassis Design

Audio Applications

- Projector Amplifier
- Zone Amplifier
- Rear Channel Amplifier

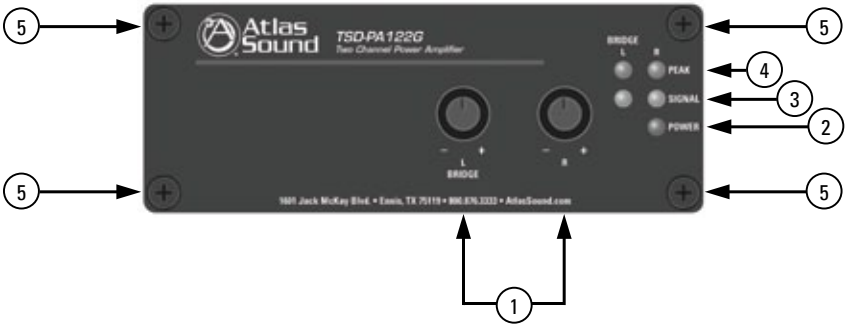
Installation

- Courtroom
- Public Forums
- Churches
- Restaurants
- Schools
- Industrial Facilities
- House of Worship





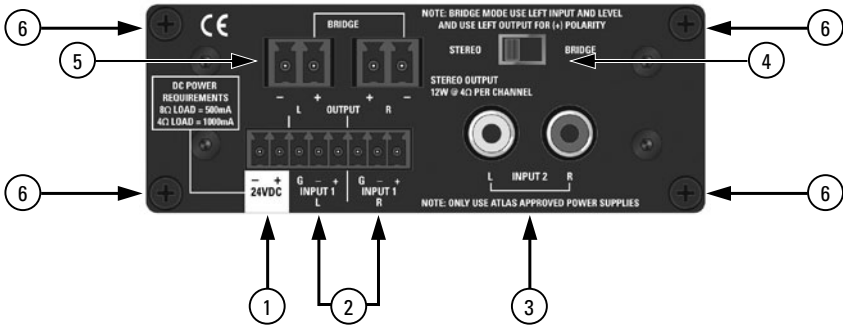
Front Panel Description



1. **Input Level Controls L & R** - Adjusts the gain of the source audio signal of both the left and right channels. Turn clockwise to increase the signal level and counter-clockwise to decrease the level. When in Bridge Mode, the Left Input control adjusts the audio level at the speakers. **Note:** The Input Level Control knobs can be removed and replaced with a supplied security cover to prevent unauthorized adjustment.
2. **Power LED** - Illuminates Blue when 24VDC power is present.
3. **Signal LED** - Illuminates Green when the input signal strength reaches 25mV to verify a signal path. There is an LED for each channel.
4. **Peak LED** - Illuminates Red when the input signal reaches 3dBV below when signal clipping will occur. Occasional flashing is normal but if this indicator is continuously On, then reduce the input level using the input level control on the front panel. There is an LED for each channel.
5. **Bracket Retainer Points** - Each TSD includes two mounting brackets for securing the TSD to a cabinet or wall. Remove screws and align the bracket with the panel hole before firmly tightening the screws.



Rear Panel Description



TSD Input/Output connections are removable for easy system wiring. The connectors have a 3.5mm pitch between pins.

- 1. DC Power Input** - Each TSD that requires DC power comes with a 2 position connector for an external 24VDC power supply (sold separately). Because of the TSDs low power consumption, a single external power supply may power more than one TSD. Please refer to the specifications on current requirements in milliamps to match with the appropriate power supply. Please observe the polarity of the wiring to this connector. **Note:** It is acceptable to exceed the current requirements of the TSDs but NOT safe to use a power supply that is below the current requirement of the device. When using an 8Ω speaker load, use a power supply with 500mA capacity (Atlas TSD-PS24V500MA). For 4Ω speaker loads, use a power supply with at least 1000mA capacity (Atlas TSD-PS24V2500MA).
- 2. Balanced Line Inputs L & R** - Connect balanced line level signals to these left and right phoenix style connectors. Your connection must be mated properly to the input connector or signal loss and/or noise may occur. **Note:** Unbalanced line level inputs can also be used by connecting the (G) and (-) terminals together.
- 3. RCA Inputs L & R** - Unbalanced audio signals applied to these female RCA connectors are controlled from the front panel L & R control knobs.
- 4. Stereo/Bridge Switch** - Select whether the PA122G operates as a stereo 2-channel amplifier or a single channel with the speaker load bridged across the two outputs. The minimum Stereo mode load is 4Ω and the minimum Bridged mode load is 8Ω. It is recommended that the power is removed from the PA122G when switching between operating modes.
- 5. Speaker Outputs L & R** - Connect the loudspeaker wiring to these terminals, observing the polarity shown on the rear of the chassis. When in stereo mode, a polarity reversal on one channel will cause poor bass response and low output levels. In Bridged Mode, connect the 8Ω speaker load across the left speaker output (+) terminal and the right speaker output (-) terminal.



6. **Cable Management Retainer Points** - Use the rear panel screws for connecting the included cable retainers. Each TSD comes with two cable retainers for simplified cable management.

Knob and Security Cover

All front panel level controls feature a removable knob that can be replaced with included security covers to prevent potentiometer damage or unwanted changes.

- **Knob Installation** - Turn the potentiometer shaft fully counter-clockwise. Align the knob indicator to the lowest setting on the panel and the potentiometer shaft slot. Carefully press the knob onto the potentiometer shaft. Do not force or damage may occur to the potentiometer.
- **Security Cover Installation** - Remove the knob from the panel and insert the cover. Do not force or damage may occur to the potentiometer. Small pliers may be required to remove the knobs.

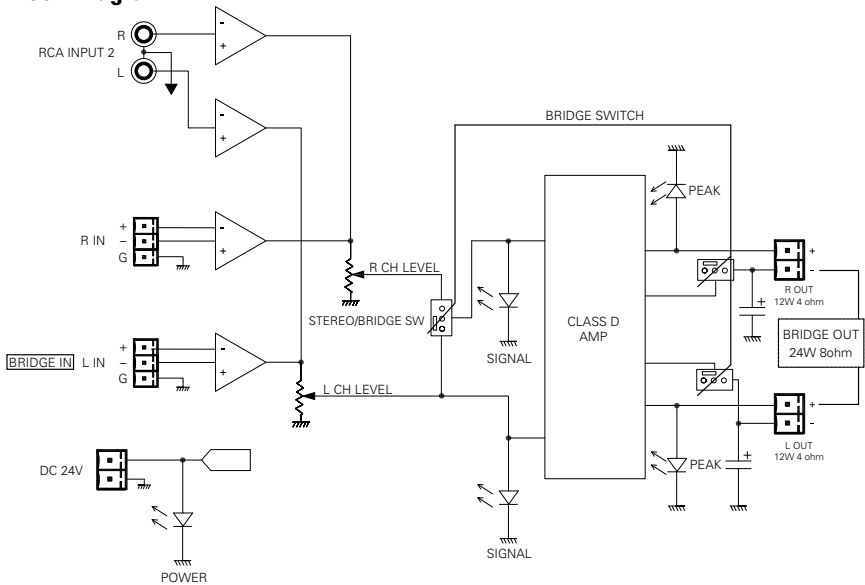
Mounting

There are three ways to securely mount this TSD:

1. **Velcro™** - Each unit includes industrial-grade Velcro™ with adhesive backing to adhere to any flat surface.
2. **Brackets** - Each unit includes two mounting brackets to secure to a cabinet or wall.
3. **Rack Mount Panel** - The optional TSD-RMK rack mount panel supports up to four TSDs in a 1RU space.



Block Diagram



Specifications

Description	Two Channel Amplifier
Load Rating	8 Ω - 6W x 2 CH 4 Ω - 12W x 2 CH 8 Ω Bridge Mode - 24W x 1 CH
Chassis Color	Black
Chassis Material	Aluminum
Inputs	
Type	Qty 2, Unbalanced
Connection	RCA Left and Right
Impedance	10K Ω
Input Level	316mV (-10dBV)
Type	Qty 2, Balanced Line
Connection	Removable 3 Position Captive Screw 3.5mm Spacing
Impedance	10K Ω Balanced, 5K Ω Unbalanced
Line Input Level	500mV (-6dB) Balanced
Outputs	
Type	Qty 2, Speaker Output
Connection	Removable 2 Position Captive Screw 5mm Spacing
Wire Size	14 Gauge Max



Controls
Level Control Qty 2, Removable Knob with Security Cover
Operation Mode Switch Stereo or Bridge

Indicators

Input Signal Green, 25mV On Threshold, Qty 2
Peak Red, -3dB Before Clip, Qty 2
Power Blue

Electrical

Frequency Response 20Hz - 20kHz (± 3 dB)
THD 1% @ 1kHz
Signal to Noise 80dBV

Mounting

Velcro™ Industrial-Grade, Included
Brackets Qty 2, Included
TSD-RMK Optional 1 RU Rack Mount Panel (Supports 4 TSD Units)
Cable Retainer Qty 2, Included

Power Requirements

Note: All Current and Watt data is based on AC power consumption using the TSD-PS24V2500mA Power Supply.

	8 Ω	4 Ω
Voltage	24VDC 500mA	24VDC 1000mA
Idle Current	40mA	40mA
Idle Watts	2.7W	2.7W
Average Current	140mA	250mA
Average Watts	10W	20W
Max Current	510mA	510mA
Max VA Watts	38W	38W
Dimensions	H 1.5" (39mm) x W 4" (101mm) x D 2.75" (70mm)	
Weight	6oz, .165kg	

Accessories

TSD 24VDC Power Supplies
TSD-RMK 1 RU Rack Panel

Safety and Certifications

External Power Supply cUL, CE, RoHS, TUV



Limited Warranty

All products manufactured by Atlas Sound are warranted to the original dealer/installer, industrial or commercial purchaser to be free from defects in material and workmanship and to be in compliance with our published specifications, if any. This warranty shall extend from the date of purchase for a period of three years on all Atlas Sound products, including SOUNDOLIER brand, and ATLAS SOUND brand products except as follows: one year on electronics and control systems; one year on replacement parts; and one year on Musician Series stands and related accessories. Additionally, fuses and lamps carry no warranty. Atlas Sound will solely at its discretion, replace at no charge or repair free of charge defective parts or products when the product has been applied and used in accordance with our published operation and installation instructions. We will not be responsible for defects caused by improper storage, misuse (including failure to provide reasonable and necessary maintenance), accident, abnormal atmospheres, water immersion, lightning discharge, or malfunctions when products have been modified or operated in excess of rated power, altered, serviced or installed in other than a workman like manner. The original sales invoice should be retained as evidence of purchase under the terms of this warranty. All warranty returns must comply with our returns policy set forth below. When products returned to Atlas Sound do not qualify for repair or replacement under our warranty, repairs may be performed at prevailing costs for material and labor unless there is included with the returned product(s) a written request for an estimate of repair costs before any nonwarranty work is performed. In the event of replacement or upon completion of repairs, return shipment will be made with the transportation charges collect.

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