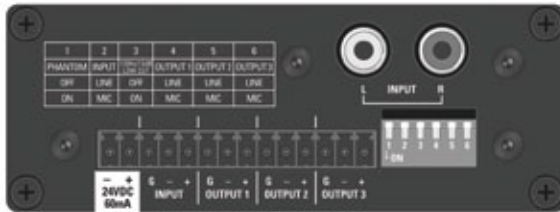




**TSD-DA13**  
**1x3 Distribution Amplifier**



1601 Jack McKay Blvd. • Ennis, Texas 75119 U.S.A.  
Telephone: 800.876.3333 • Fax: 800.765.3435



## Description

The Atlas Sound TSD-DA13 1x3 distribution amplifier is designed to provide clean, isolated signal distribution locally or to remote locations. The unit allows a balanced mic or line level source to be distributed to three isolated variable outputs making it a perfect solution for applications including convention centers, houses of worship, restaurants/sports bars and industrial facilities.

A high quality, low noise mic pre-amp, defeatable 12dB low cut filter @ 125Hz and dual summing RCA line level inputs are included as part of the unit's input section. These features combined with the 3 mic / line level outputs allow for multiple configuration.

Isolation between outputs prevents crosstalk, removes mismatched input impedance concerns and allows for adjustable levels on each connected device.

All I/O (except the summing RCA inputs) is via Phoenix style connectors for installation convenience.

The TSD-DA13 is highly efficient and meets Energy Star™ standards as one 24V DC power supply (available separately) can power multiple Atlas Time Saving Devices.

The TSD-DA13 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 and in the 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-proof security covers.

## Features

- One (1) Balanced Mic/Line Input with Switchable 24V Phantom Power
- High Gain (50dB), Low Noise Mic Preamp
- Summed Dual RCA Input
- Three (3) Isolated Balanced Mic/Line Outputs
- 12dB/Octave Low Cut Filter @ 125Hz
- Input Peak & Signal Indicator LEDs
- High Gain Output for Driving Long Balanced Lines
- Separate Ground Connections
- Removable Phoenix Style I/O Connectors
- Meets Energy Star™ Standards
- Compact Chassis Design

## Audio Applications

- Mic Preamp
- Line Preamp
- Stereo Summing Preamp
- Line Drive
- Zone Divider

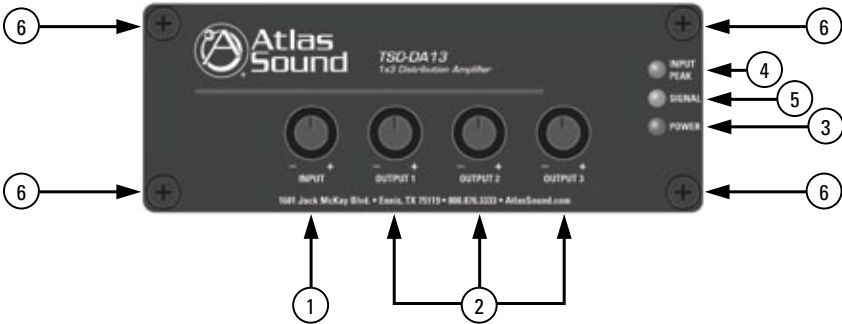
## Installation

- Churches
- Restaurants
- Sports Bars
- Schools
- Industrial Facilities





### Front Panel Description

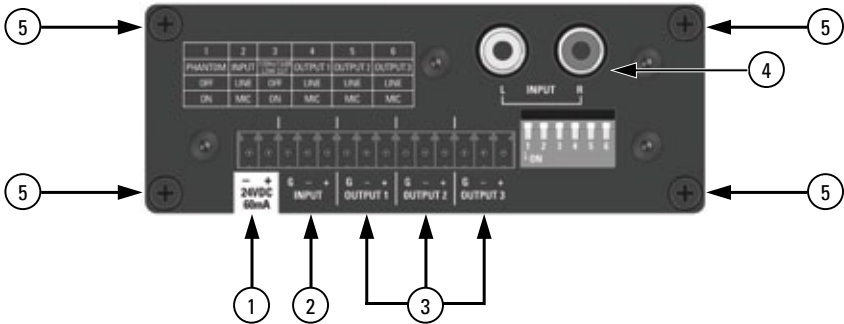


- Input Level Control** - Adjusts the gain of the source audio signal that is applied to the DA13 circuitry. Turn clockwise to increase the signal level and counter-clockwise to decrease it. **Note:** The Input Level Control knob can be removed and replaced with a supplied security cover to prevent unauthorized adjustment.
- Output Level Controls** - Adjust the level of each of the three outputs using these controls. Turn clockwise to increase the signal level and counter-clockwise to decrease it. **Note:** The output level control knobs can be removed and replaced with supplied security covers to prevent unauthorized adjustment.
- Power LED** - Illuminates BLUE when 24VDC power is present.
- Input 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.
- Signal LED** - Illuminates Green when the input signal strength reaches 25mV to verify a signal path.
- 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 connector has a 3.5mm pitch between pins.

- 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 TSD's 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. **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.
- Mic/Line Input** - Balanced Line level or balanced mic level signals are connected to this input. Your source connects to a balanced line or mic level source. Your connection must be mated properly to the input connector or signal loss and/or noise may occur. For gain or source input type selection, refer to the "Dip Switch Function Identification" chart for proper input setting. **Note:** Unbalanced line level inputs can be inserted with proper wire configuration by connecting the (G) and (-) terminals together.
- Mic/Line Output** - Balanced Line level signals provide output when an input signal is present for connection to balanced mic or line level devices. Your output connections must be connected properly to the connectors or loss and/or noise may be introduced into the signal. **Note:** Unbalanced line level devices can be used with proper wire configuration by connecting the (G) and (-) terminals together.
- RCA Input** - Unbalanced audio signals applied to these female RCA connectors are electronically summed and fed to the three outputs. It is NOT recommended to use the unbalanced RCA inputs and the balanced input at the same time.
- Cable Management Retainer Points** - Each TSD includes two cable retainer straps for securing the included cable management retainers. Remove one of the rear panel screws, align the panel hole with a retainer and firmly tighten the screws.





### Dip Switch Function Identification

SWITCH FUNCTIONS

1	2	3	4	5	6
PHANTOM	INPUT	125Hz/12dB LOW CUT	OUTPUT 1	OUTPUT 2	OUTPUT 3
OFF	LINE	OFF	LINE	LINE	LINE
ON	MIC	ON	MIC	MIC	MIC

### Switch Position

- DIP SW # 1 - 24VDC Phantom Power applies power to the input terminal for condenser mic operation. Down position is On.
- DIP SW # 2 - Input Mic or Line Select for input gain selection. Up position is Line, down position is Microphone.
- DIP SW # 3 - Input Low Cut Filter engages at a roll off rate of 12dB per octave. This filter operates either in the Line or Mic mode. Ideal for vocal microphones to reduce low frequency energy and to increase intelligibility. Down position is On.
- DIP SW # 4,5,6 - Microphone or Line signal level selection for each output . Up position is Line, down position is Microphone.

### Knob and Security Cover

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

1. 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.
2. 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:

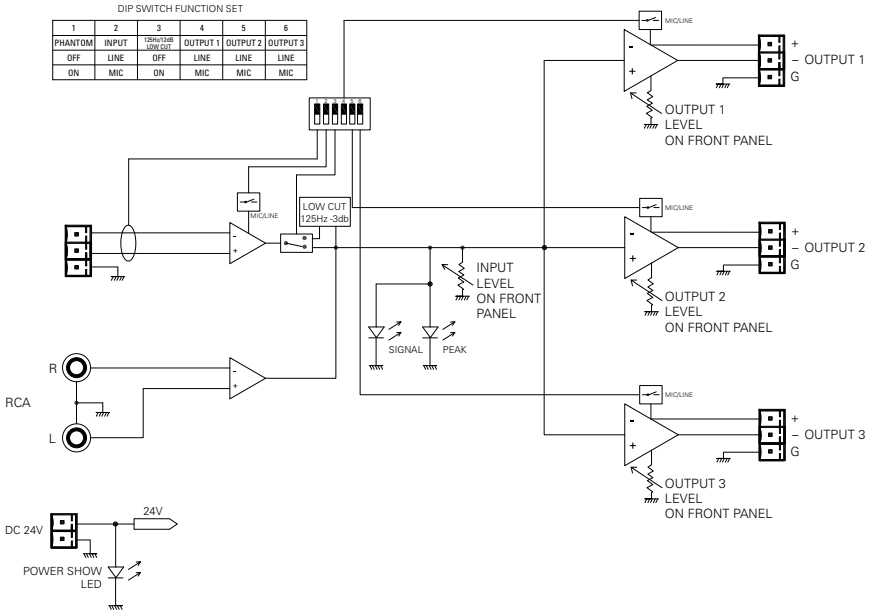
1. Velcro™ - Each unit includes industrial grade Velcro™ with adhesive™ backing to adhere to any flat surface.
2. Brackets - Each unit includes two mounting brackets to secure to a cabinet or wall.
3. Rack Mount Panel - The optional TSD-RMK rack mount panel supports up to four TSDs in a 1RU space.



1601 Jack McKay Blvd. • Ennis, Texas 75119 U.S.A.  
Telephone: 800.876.3333 • Fax: 800.765.3435



**Block Diagram**



**Specifications**

- |                         |   |
|-------------------------|---|
| <b>Description</b>      | 1 x 3 Mic/Line Distribution Amplifier                                     |
| <b>Chassis Color</b>    | Black   |
| <b>Chassis Material</b> | Aluminum  |
| <b>Inputs</b>           |   |
| Type                    | Qty 1, Unbalanced   |
| Connection              | RCA Left and Right Actively Summed  |
| Impedance               | 10KΩ  |
| Input Level             | 316mV (-10dBV) = 2V (+6dBV) Balanced Output, Maximum Input 6V (15dBV)     |
| Type                    | Qty 1, Balanced Mic or Line Selectable                                    |
| Connection              | Removable 3 Position Captive Screw 3.5mm Spacing                          |
| Impedance               | 1.2KΩ Balanced, 600Ω Unbalanced   |
| Phantom                 | 24VDC Defeatable  |
| Low Cut Filter          | 125Hz/12dB Defeatable   |
| Line Input Level        | 1V (0dBV) Balanced = 2V (+6dBV) Balanced Output, Maximum Input 6V (15dBV) |





Mic Input Level 46dB Gain 10mV (-40dBV) Balanced = 2V (+6dBV) Balanced Output, Maximum Input 40mV (-27dBV)

### Outputs

Type Qty 3, Balanced Mic or Line Selectable  
 Connection Removable 3 Position Captive Screw 3.5mm Spacing  
 Impedance 300Ω Balanced, 150Ω Unbalanced  
 Line Output Level 1V (0dBV) In = 2V (+6dBV) Balanced, Maximum Output 6V (15dBV)  
 Mic Input vs Output Level 10mV (-40dBV) In = 80mV (-21dBV), Maximum Output 300mV(-10dBV)

### Controls

Input Level Control Qty 1, Removable Knob with Security Cover  
 Output Level Control Qty 3, Removable Knobs with Security Covers  
 Dip Switch Function
 

- Phantom Power 24VDC
- Input Mic/Line Select
- Input 125Hz/12dB High Pass Filter
- Output Qty 3, Mic/Line Select

### Indicators

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

### Electrical

Frequency Response 20Hz - 20kHz (±1dB)  
 THD .06% & 1kHz  
 Signal to Noise
 

- Line to Line: 85dBV
- Mic to Line: 78dBV
- Line to Mic: 55dBV
- Mic to Mic: 55dBV

### 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

Voltage 24VDC  
 Power Consumption 60mA  
 Power Consumption 1.4W

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



1601 Jack McKay Blvd. • Ennis, Texas 75119 U.S.A.  
 Telephone: 800.876.3333 • Fax: 800.765.3435



## 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.

EXCEPT TO THE EXTENT THAT APPLICABLE LAW PREVENTS THE LIMITATION OF CONSEQUENTIAL DAMAGES FOR PERSONAL INJURY, ATLAS SOUND SHALL NOT BE LIABLE IN TORT OR CONTRACT FOR ANY DIRECT, CONSEQUENTIAL OR INCIDENTAL LOSS OR DAMAGE ARISING OUT OF THE INSTALLATION, USE OR INABILITY TO USE THE PRODUCTS. THE ABOVE WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Atlas Sound does not assume, or does it authorize any other person to assume or extend on its behalf, any other warranty, obligation, or liability. This warranty gives you specific legal rights and you may have other rights which vary from state to state.

## Service

Should your Atlas TSD require service, please contact the Atlas Sound warranty department at 1-877-689-8055, ext. 1274 to obtain an RA number.

Atlas Sound Tech Support can be reached at 1-800-876-3333.

Visit our website at [www.AtlasSound.com](http://www.AtlasSound.com) to see other Atlas products

©2010 Atlas Sound L.P. All rights reserved. Atlas Sound is a trademark of Atlas Sound L.P.  
All other trademarks are the property of their respective owners. ATSO03936 RevA 9/10



**Atlas  
Sound**

1601 Jack McKay Blvd. • Ennis, Texas 75119 U.S.A.  
Telephone: 800.876.3333 • Fax: 800.765.3435