AtlasIED

TSD-DA28
2x8 Balanced Line
Distribution Amplifier

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

Specifications are subject to change without notice.

Description

The AtlasIED TSD-DA28 2x8 distribution amplifier is designed to provide clean, isolated signal distribution locally or to remote locations. The unit allows two independent balanced line level source inputs to be distributed to eight isolated variable outputs making it a perfect solution for applications including convention centers, houses of worship, restaurants/sports bars and industrial facilities. Isolation between outputs prevents crosstalk, removes miss matched input impedance concerns and allows for adjustable levels on each connected device. All I/O is via Phoenix style connectors for installation convenience and inputs may be easily paralleled for 1 in / 8 out configuration.

The TSD-DA28 is part of a full line of AtlasIED 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. The TSDs are highly efficient and meet Energy Star™ standards as one 24V DC power supply (available separately) can power multiple Atlas Time Saving Devices.

Features

- Two (2) Balanced Line Inputs
- Eight (8) Isolated Balanced Line Outputs
- Signal & Peak Indicator LEDs For Each Channel
- High Gain Output for Driving Long Balanced Lines
- Security Covers Included for All Front Panel Controls
- Multiple Mounting Configurations
- Cable Management System
- Separate Ground Connections
- Removable Phoenix Style I/O Connectors
- Meets Energy Star™ Standards
- Compact Chassis Design

Audio Applications

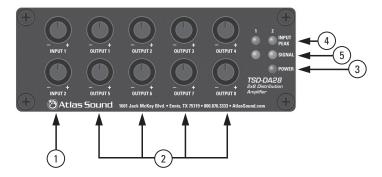- Line Preamp
- Line Drive
- Zone Divider
- Broadcast

Installation

- Churches
- Restaurants
- Sports Bars
- Schools
- Industrial Facilities
- House of Worship

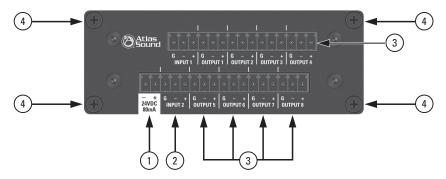*Specifications are subject to change without notice.*

Front Panel Description

1. **Input Level Controls** - Adjust the gain of the source audio signal that is applied to the DA28 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.

2. **Output Level Controls** - Adjust the level of each of the eight outputs using these individual 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.

3. **Power LED** - Illuminates Blue when 24VDC is present.

4. **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.

5. **Signal LED** - Illuminates Green when the input signal strength reaches 25mV to verify a signal path.
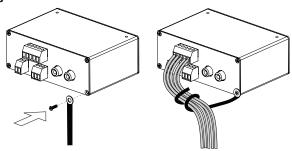
Rear Panel Description

TSD Input/Output connections are removable for easy system wiring. The connector has 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 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.

2. **Balanced Line Input** - Connects to a balanced line level source. Your connection must be mated properly to the input connector or signal loss and/or noise may occur. **Note:** Unbalanced line level inputs can be inserted with proper wire configuration by connecting the (G) and (-) terminals together.

3. **Balanced Line Output** - Connections to provide output when an input signal is present for connection to balanced 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.

4. **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.
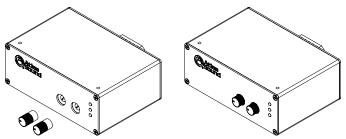
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Cable Management

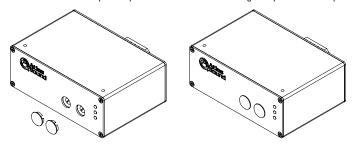

Knob and Security Cover

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. Small pliers may be required to remove the knobs. Align the security cover to the level control panel hole. Push the cover into the hole until it snaps into place. Do not force or damage may occur to the potentiometer.
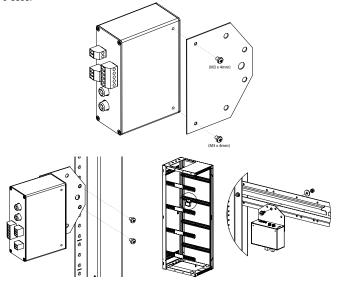

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Mounting

Listed below are the ways to mount the TSD and the optional accessories that can be purchased.

1. Velcro™ - Each unit includes two 2" x 2" pieces of industrial-grade Velcro™ with adhesive backing to adhere to any flat surface. Clean all surfaces before applying the adhesive side of the Velcro™.
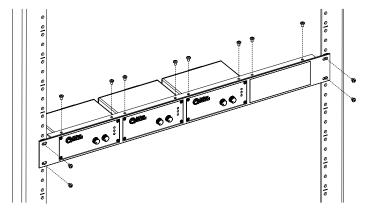
2. Multi Mount Plate - Each TSD includes a versatile multi-position mounting plate. This plate allows the TSD to be mounted to any surface; but is ideal for use with rear rack rails or side rack hat channels. Use the included M3 x 4mm screws to install the plate on the TSD. **Note:** Only use the included M3 x 4mm screws as other screws may be too long and will cause internal damage to the TSD. The multi-position mounting plate is a new addition being included with TSDs. If the TSD being used did not include the mounting plate, contact AtlasIED customer service at 1-800-876-3333.
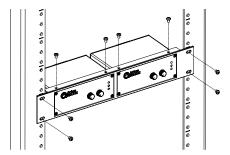
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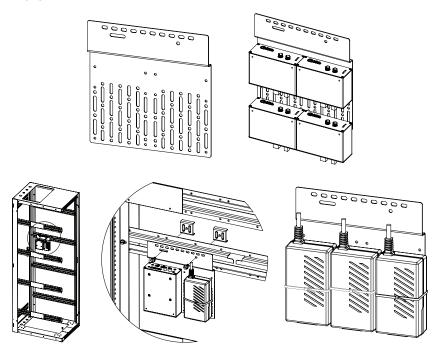
Optional Mounting Accessories

1. TSD-RMK 19" Width Rack Mount Kit - For 19" rack mounting, AtlasIED offers an optional rack mount kit, the TSD-RMK. This rack mount kit can support up to four TSD units. The kit includes three blank panels designed to fill any unused slots. Use the included hardware to mount the TSD into the rack mount kit using the top mount screw holes on the TSD.

2. TSD-RMKHR Half Width Rack Mount Kit - AtlasIED offers an optional rack mount kit that can be used in half width rack applications including the AtlasIED WMA-HR and AWR-HR models. The TSD-RMKHR can support up to two TSDs. Included is an extra blank panel to fill one of the spaces if only one TSD is being used.

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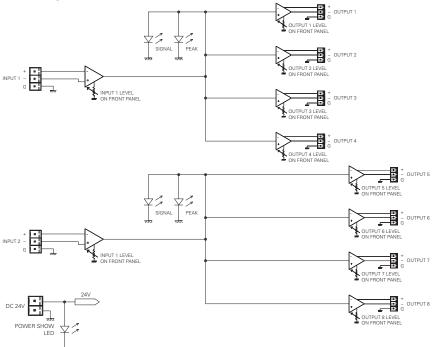3. TSD-RRMK Rear Rack Mounting Kit - For complete flexibility in mounting a TSD or TSD external power supplies the optional TSD-RRMK is available. The TSD-RRMK can support mounting of either two larger TSDs with external power supplies or up to 4 TSD models. **Note:** Only use the included M3 x 4mm screws as other screws may be too long and will cause internal damage to the TSD.

Block Diagram

Specifications

Description	2 x 8 Line Distribution Amplifier

Chassis Color	Black
Chassis Material	Aluminum

Inputs

Type	Qty 2, Balanced Line
Connection	Removable 3 Position Captive Screw 3.5mm Spacing
Impedance	10KΩ Balanced, 5KΩ Unbalanced
Line Input Level	1V (0dBV) Balanced = 2V (+6dBV) Balanced Output, Maximum Input 6V (15dBV)

Outputs

Type	Qty 8, Balanced
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)

Controls

Input Level Control	Qty 2, Removable Knobs with Security Covers
Output Level Control	Qty 8, Removable Knobs with Security Covers

Indicators

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

Electrical

Frequency Response	20Hz - 20kHz (±1dB)
THD	.06% & 1kHz
Signal to Noise	90dB

Power Requirements

Voltage	24VDC
Power Consumption	80mA
Power Consumption	1.92W

Dimensions	H 1.5" (39mm) x W 4" (101mm) x D 2.75" (70mm)

Weight	6oz, .165kg

Included Accessories

Velcro™	Industrial-Grade
Multi-Mount Plate	Qty 1, Includes Two (2) M3 x 4mm Screws
Cable Retainers	Qty 2
Level Control Knobs	Qty 10
Level Control Security Covers	Qty 10

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Optional Accessories

TSD 24VDC	Power Supply
TSD-RMK	1 RU 19" Width Rack Mount Panel (Supports 4 TSD Units)
TSD-RMKHR	1 RU Half Rack Width Panel (Supports 2 TSD Units)
TSD-RRMK	Rear Rack Mounting Kit

Safety and Certifications

External Power Supply	cUL, CE, RoHS, TUV

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Limited Warranty

All products manufactured by AtlasIED 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 AtlasIED 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. AtlasIED 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 AtlasIED 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, ATLASIED 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.

AtlasIED 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 AtlasIED warranty department at 1-877-689-8055, ext. 277 to obtain an RA number.

AtlasIED Tech Support can be reached at 1-800-876-3333 or support.atlasied.com.

Visit our website at www.AtlasIED.com to see other Atlas products.

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