



# Power Dynamics PDA-B500 PDA-B Series Professional Power Amplifier Instruction Manual

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**Power Dynamics PDA-B500 PDA-B Series Professional Power Amplifier**



## Important Safety Information

### **WARNING:**

TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

### **CAUTION:**

1. Handle the power supply cord carefully. Do not damage or deform the power supply cord. If it is damaged or deformed, it may cause electric shock or malfunction when used. When removing from the wall outlet, be sure to remove by holding the plug attachment and not by pulling the cord.
2. In order to prevent electric shock, do not open the top cover. If a problem occurs, contact your dealer.
3. Do not place metal objects or spill liquid inside the unit. Electric shock or malfunction may result.

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE. THE UNIT SHOULD NOT BE ADJUSTED OR REPAIRED BY ANYONE EXCEPT PROPERLY QUALIFIED SERVICE PERSONNEL DOUBLE INSULATED. WHEN SERVICING, USE ONLY IDENTICAL REPLACEMENT PARTS.

### **CAUTION: TO REDUCE THE NOTE:**

RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE COVER (OR BACK) . THERE ARE NO SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with the arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of an insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

### **NOTE:**

This unit may cause interference to radio and television reception

## Important Safety Instructions

1. Read Instructions – All the safety and operating instructions should be read before this product is operated.
2. Retain Instructions The safety and operating instructions should be retained for future reference.
3. Heed Warnings All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow Instructions All operating and use instructions should be followed.
5. Improper installation can cause serious damage to people and property.

6. **Water and Moisture** The appliance should not be used near water – for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, and the like.
7. **Carts and Stands** The appliance should be used only with a cart or stand that is recommended by the manufacturer. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.
8. **Wall or Ceiling Mounting** The product should be mounted to a wall or ceiling only as recommended by the manufacturer.
9. **Heat** The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
10. **Power Sources** – This product should be operated only from the type of power source indicated on the making label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer the operating instructions.
11. **Power-Cord Protection** Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to the cord in correspondence of plugs, convenience receptacles, and the point where they exit from the appliance.
12. **Cleaning** – The appliance should be cleaned only as recommended by the manufacturer. Clean by wiping with a cloth slightly damp with water. Avoid getting water inside the appliance.  
**Non-use Periods** The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
13. **Object and Liquid Entry** Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
14. **Damage Requiring Service** The appliance should be serviced by qualified service personnel when:
  - The power-supply cord or the plug has been damaged; or
  - Objects have fallen, or liquid has been spilled into the appliance; or
  - The appliance has been exposed to rain; or
  - The appliance does not appear to operate normally or exhibits a marked change in performance; or
  - The appliance has been dropped, or the enclosure damaged.
15. **Servicing** The user should not attempt any service to the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.
16. **Ventilation** – Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is the manufacturer's instructions have been adhered to.
17. **Attachments** – do not use attachments not recommended by the product manufacturer as they may cause hazards.
18. **Accessories** – Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.
19. **Lightning** – For added protection for this product during a lightning storm, or when it is left unattended and

unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.

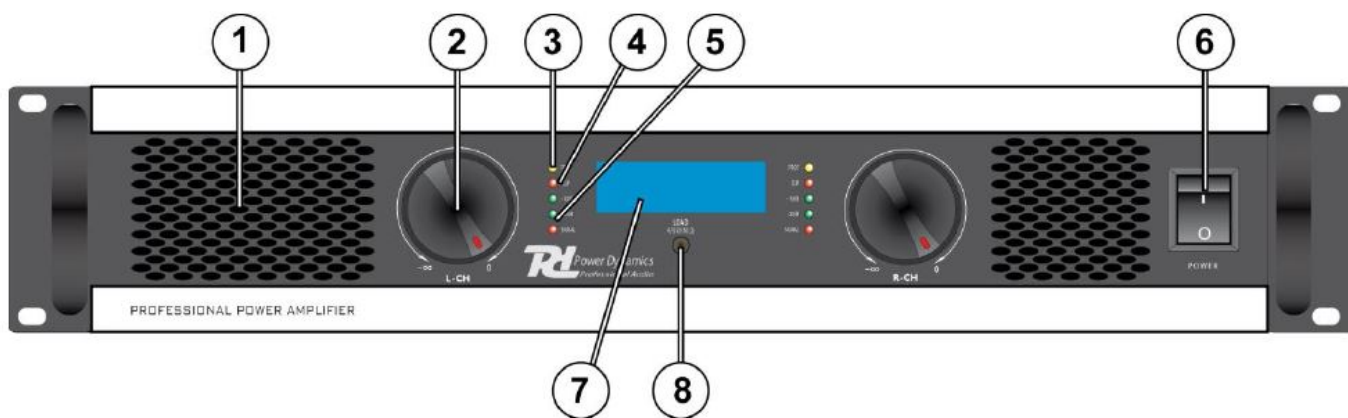
20. Replacement Parts – When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
21. Safety Check – Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

## Features

Power Dynamics Professional stereo audio amplifier featuring high output power and excellent value for money. The CPA range of amplifiers are ideal for the starting DJ, smaller fixed installations in pubs, clubs canteens etc. or as a complement in larger disco installations.

- Blue LCD display for temperature, operating mode, output power, protection and audio level indication.
- Outstanding sound quality
- Protection against high temperatures
- Stereo and bridge mode
- Signal, Clip & Protect indication for each channel
- Inputs via XLR & 6.3mm jack
- Speaker NL4 & binding post outputs
- Temperature-controlled cooling fans

## Front Panel Features



### 1. Cooling Vents.

Front to rear forced airflow.

### 2. Volume Controls.

These controls adjust the volume level of both channels. Turn slightly to the left when the clip indicators (4) light up.

### 3. Protect Indication.

When on any given point, something damaging might occur to your amplifier, it will switch in protect mode. The amplifier will disconnect the point where the damage is about to occur and switch on the protection led to indicate to you that something is wrong. Reasons might be: Bad ventilation,  
A low impedance (< 4 Ohm), Defect fan(s), A short circuit in cables.

#### 4. Clip Indication.

These LEDs will light up when one or both channels are on max power. It can occur that these LEDs will lit up now and then, this is not a problem. But if it lights up continually you need to adjust the volume down, otherwise permanent damage to equipment might occur

#### 5. Signal indicators.

Green LEDs indicate the amplifiers output signal levels.

#### 6. On/Off Switch.

For switching the amplifier on and off. Always adjust the volume down to its minimum before switching this amplifier on.

#### 7. Blue LCD display

Information of the operation mode and parameters.

#### 8. LOAD 4/8 Ohm

Select the speaker load for the correct calculation of the output power.

### DISPLAY

Standard indication:



- **Line-1:** The output power of both output channels. The amplifier calculated the output power. NOTE: Select the correct load impedance (button 8) Calculation not 100% correct in bridge operation.
- **Line-2:** If CLIP ON the amplifier input/output is overloaded. Reduce in that case the input level.
- **Line-3:** Protection information.
- **Line-4:** Temperature of the output stage of both channels
- **Bargraph:** Vertical bar graph in the middle of the LCD display indicates the output signal level of both channels

Indication for a few seconds after actuating a volume controller:



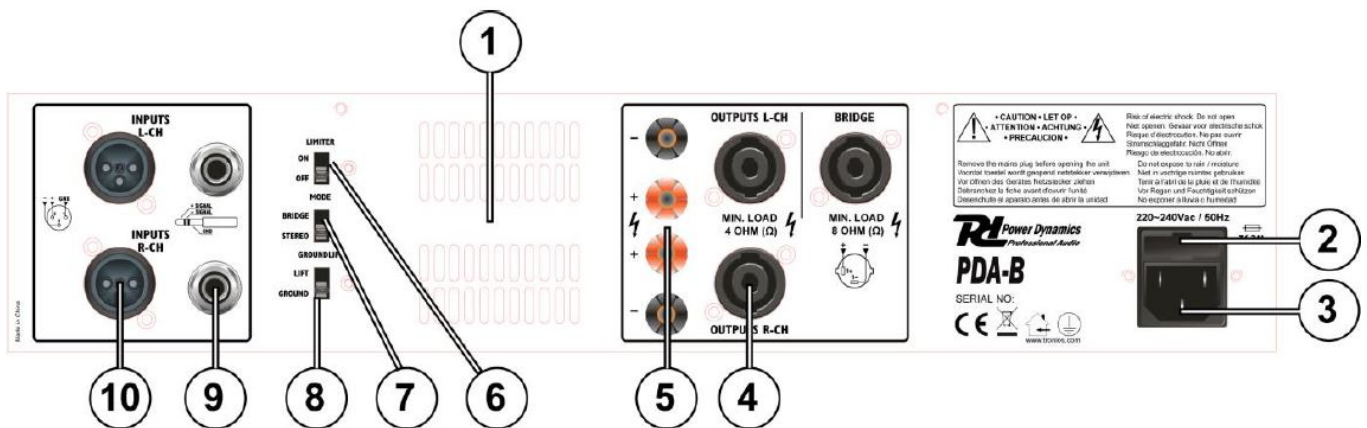
- **Line-1:** Operation mode STEREO or BRIDGE
- **Line-2:** Limiter ON or OFF
- **Line-3 & 4:** ATTEN, attenuation of the input signals, line 4 shows the level.
- **Bargraph:** Vertical bar graph in the middle of the LCD display indicates the output signal level of both channels

Indication for a few seconds after the selection of the output impedance button (8):

OUT 4Ω

Selected the correct output load for the calculation of the output power.

## Rear Panel Features



### 1. Cooling Vents.

Front to rear forced airflow. Do not obstruct air vents.

### 2. Fuse.

This main fuse secures the amplifier and wires against defects. Replace this only with a fuse of the same type and value.

### 3. Mains Power Connector.

### 4. Speaker Outputs NL4.

Minimum load in stereo mode 4 Ohm per channel. Pin +1 & +2 = + output, Pin -1 & -2 = - output

### 5. Binding Post Output Jacks.

The minimum load in stereo mode is 4 Ohms per channel. Minimum load in bridge mode 8 Ohm.

### 6. Limiter Switch

Limiter for the automatic level limitation.

### 7. Mode Switch.

- **The amplifier can use 2 different modes:** stereo or bridge. Choose one of these functions:
- **Stereo mode:** Standard left/right stereo mode.
- **Bridge mode:** This mode combines both amps on one channel which results in double power on this channel. Connects the signal to the left input channel and the output level can now be adjusted with the left volume control.

### 8. Ground Lift Switch.

Allows circuit and chassis grounds to be separated in case of problems with earth loops (hum).

### 9. Balanced 6.3mm Stereo Jack inputs. Two 6.3mm jack female input connectors for connecting a signal source (mixer etc.).

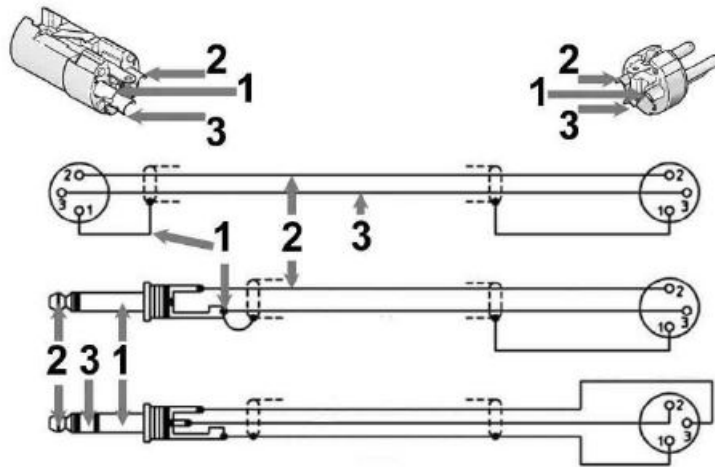
### 10. Balanced XLR inputs.

Two 3-pin female XLR input connectors for connecting a signal source (mixer etc.).

## Installation

### Connecting Input

Both inputs are balanced. If a balanced output is unavailable, you can also use an unbalanced one, and connect pin 3 – with pin1 mass (see below). The unbalanced line may result in noise over long cable runs.



- 1 = earth / mass, 2=signal +, 3=signal –

### Connecting Output

Make sure the amplifier is turned off before you wire the system. Speakers can be connected using speaker NL4 plugs or bare wire for your binding post output connectors. Using the guidelines below select the appropriate size of wire based on the distance between the amplifier and speaker.

### Distance/Wire Size

- <10m 1.5mm<sup>2</sup>
- >10m <20m 2.5mm<sup>2</sup>
- >20m <30m 4.0mm<sup>2</sup>

**NOTE:** Never connect a hot (+) output to ground or (-) output and never connect the hot (+) to other hot outputs!

### Connect to mains power

Before plugging the unit in always make sure that the power supply matches the product specification voltage. First, connect the IEC end of the cordset to the IEC connector on the amplifier then plug the other end of the cordset to the AC mains.

### Please read the instructions below for reliable and problem-free use:

- Be sure all connections made are made in the correct way.
- Check if the connected speakers are compatible with the amplifier.
- Ensure there is adequate ventilation.
- Prevent exposure to moisture.
- Never plug speakers in/or out while in use, this can result in serious damage.

## Specifications

**Note:** Specifications and design are subject to change without notice for purpose of improvement.

Electric products must not be put into household waste. Please bring them to a recycling center. Ask your local authorities or your dealer about the way to proceed.

## **WARRANTY CONDITIONS**

The date the product leaves the importer is considered to be the date the warranty begins. The law obliges the retailer to offer a two-year guarantee to the end user. Only companies approved by Tronios are allowed to work on the equipment. During the warranty period (defective) equipment must be returned to the dealer by pre-paid mail in the original box. Potentiometers have a limited lifetime and are not covered by the manufacturer for more than normal use. For all service inquiries, refer to your local distributor, as he is best able to help you.

**The products referred to in this manual conform to the European Community Directives to which they are subject:**

### **European Union**

Tronios B.V., Bedrijvenpark Twente Noord 18, 7602KR Almelo, The Netherlands



- 2014/35/EU
- 2014/30/EU
- 2011/65/EC

### **United Kingdom**

Tronios Ltd., 130 Harley Street, London W1G 7JU, United Kingdom



- S.I. 2016:1101
- S.I. 2016:1091
- S.I. 2012:3032

Specifications and design are subject to change without prior notice. [www.tronios.com](http://www.tronios.com).

## **Documents / Resources**






PDA-B500 2x 250W  
PDA-B1000 2x 500W

V1.2

[Power Dynamics PDA-B500 PDA-B Series Professional Power Amplifier](#) [pdf] Instruction Manual  
PDA-B Series, Professional Power Amplifier, Power Amplifier, Professional Amplifier, Amplifier, PDA-B500, PDA-B1000

## References

-  [Stibat](#)
-  [Stibat](#)
-  [Sound & Light distributor - Tronios.com](#)
-  [Inleveren is terugkrijgen - Wecycle](#)
-  [Inleveren is terugkrijgen - Wecycle](#)