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# PROLUDE AMPLIFICATION

## D750

The Little  
**BRICK**  
D-CLASS Power Amplifier

User's manual  
for the tube preamplifier version

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# 1 Introduction

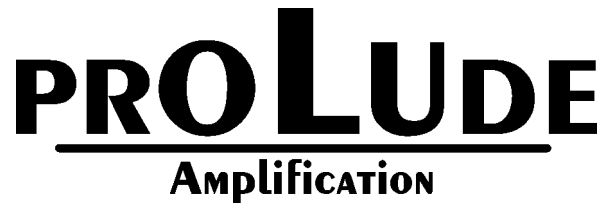
## 1.1 *Some words to the Customer*

Welcome to the club of Prolude Amplification owners! It is my pleasure to have you as a member in this small team of people who have taken notice of my handwork and intellectual product, and finally have voted for it. I hope you will feel the same as they do while your amplifier, this small part of your musical production chain, is reliably working behind you.

## 1.2 *Some words about me*

My name is Róbert Fülöp. My favorite musical instrument is the bass guitar. Its sound, shape and role within the music have all contributed to my enthusiasm. To start with, my studies and my sphere of interest have both moved me to the direction of electronics. As a result PROLUDE AMPLIFICATION was born at the beginning of the new millennium. My goal is to provide bass players with the best possible sound quality. Being an electrical engineer I'm doing it mainly with a technical mindset. However - according to the feedbacks from my satisfied customers – the musicality is also present in the final product.

The technical development has been a long process so far - end it will never come to an end. I will make further efforts to improve the product, thus satisfying the steadily changing expectations of the customer.



Date: .....

SN.: .....

Sign: .....

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## 2 Safety instructions, warnings

### 2.1 Basic precautions

WARNING - When using electrical products, basic precautions should be followed, including the following:  
Read all the instructions before using the product.

Do not use this product near water – for example, near a bathtub, washbowl, kitchen sink, in a wet basement or near a swimming pool.

This product may cause permanent hearing loss. Do not operate for long periods of time at a high volume level or at any level that is uncomfortable.

Make sure nothing interferes with the ventilation of the product when in use.

The product should be located away from heat sources such as radiators, heat registers, or other products that produce heat.

The product should be connected to a power supply of the type described in the operating instructions or as marked on the product.

The power supply cord of the product should be unplugged from the outlet when left unused for a long period of time.

Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

The product should be serviced by qualified personnel when:

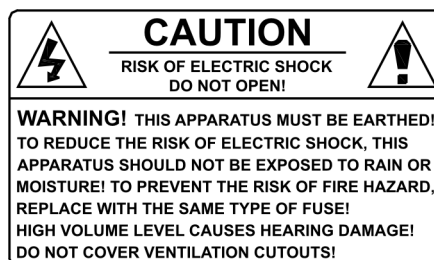
- The power supply cord or the plug has been damaged; or
- Objects have fallen, or liquid has been spilled into the product; or
- The product has been exposed to rain or moisture; or
- The product does not appear to operate normally or exhibits marked change in performance; or
- The product has been dropped, or the enclosure damaged.

10. Do not attempt to service the product. All servicing should be referred to qualified service personnel.

11. For continued protection against the risk of fire, replace fuses only with those of the same type and rating.

### 2.2 Warnings used on the amp

The lightning flash with the arrow head symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated 'dangerous voltage' within this product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.



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 this product.

### 2.3 Grounding instructions

This product must be grounded (earthed). If it should malfunction or break down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with a supply cord having an equipment grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with the local codes and ordinances.

DANGER - Improper connection of the equipment grounding conductor can result in a risk of electric shock. Check with a qualified electrician or serviceman if you are in doubt as to whether the product is properly grounded. Do not modify the plug provided with the product – if it will not fit the outlet, have a suitable outlet fitted.

### 2.4 CE mark for European harmonized standards

The CE mark which is attached to these products means it complies with the EMC Directive (89/69/EEC), CE mark directive (93/68/EEC) and Low Voltage Directive (72/23/EEC).



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### 3 Specifications

Type	D750 – The Little Brick
Description	Tube input bass amplifier
Mains voltage	230 VAC 50 Hz
Mains connecting device	Standard mains cord
Inrush current limiter	NTC
Power consumption	Max. 900 W
Output power /100Hz continuous sine/	750W @ 2.66 Ohm 550W @ 4 Ohm 300W @ 8 Ohm
Minimal load impedance	2.66 Ohm
Bandwidth -+3dB@1W	25 Hz – 22 kHz
Power amplifier	Class D
Speaker output connectors	Neutrik Speakon – Jack combo NLJ2MD-H
Input 1 connector (front panel)	Neutrik 6.3 mm Jack NMJ4HFD2
Input 2 connector (back panel)	Neutrik 6.3 mm Jack NMJ6HFD2
Input impedance	Input 1: 1 Mohm Input 1 (with -12dB pad): 48 kohm Input 2: 57 kohm
Preamplifier tube (1 pc)	6N2P-EV (6H2II-EB)
Line out	500 mVp @ 600 Ohm
Working temperature range	0 – 40 °C
Storage temperature range	-25 – 60 °C
Cooling	Fixed speed ventilator based on heatsink temperature
Weight	2.2 kg
Dimensions	Width: 251 mm Depth: 205 mm, + 15 mm knob Height: 60 mm, + 5 mm foot

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## 4 Information for installing

At high power level it is necessary to consider the wiring between the amplifier and speaker cabinets.

In most cases the amplifier is placed on top of the speaker cabinet, therefore a very short speaker cable can be used for connecting the two. This is very good, because the shorter and thicker the loudspeaker cable, the better.

Do not use an instrument cable for connecting speaker cabinets!

Use high quality / Neutrik / SPEAKON-SPEAKON speaker cable with at least  $2 \times 1.5 \text{ mm}^2$  or more cross section. They are reliable, robust and have less influence on the sound.

Use a speaker cable in good condition and connect the speaker cabinet to the amplifier before you switch on the amplifier.

Try to minimize the number of power strips used to connect the amplifier to the mains.

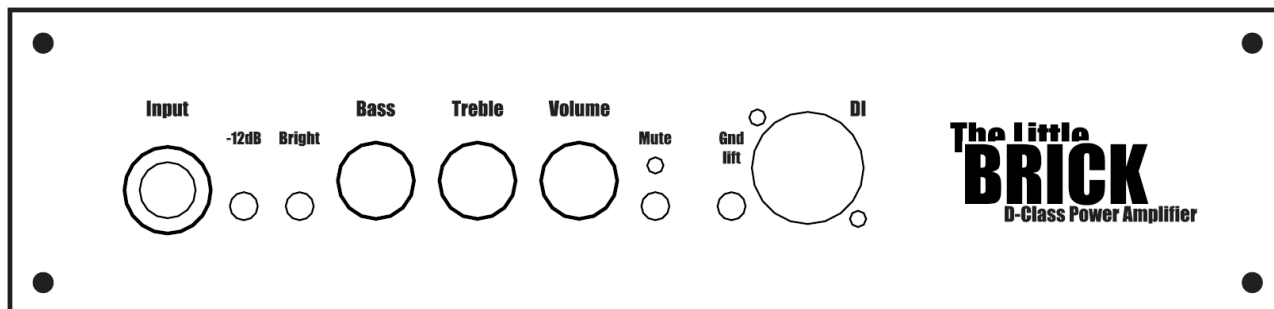
Use high quality, shielded instrument cable for connecting your instrument to the amplifier.

At high volume level the speaker cabinet might vibrate, so make sure that the placing is stable and the amplifier can not move anywhere.

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## 5 Controls and functions

### 5.1 The front panel



#### 5.1.1 Input 1

Input jack for instruments.

#### 5.1.2 -12dB pad

Decreases the sensitivity of the **Input 1** jack by 12dB.

**Note:**

If you hear overdriven sound at low **Volume** setting, try to push on this button!

#### 5.1.3 Bright

Boosts the highs adding brightness to your sound.

#### 5.1.4 Tube preamplifier section

The real tube preamplifier section gives high definition to the sound. The overall warmth and punch can be controlled by the passive **Bass** and **Treble** tone knobs.

**Note:**

The passive tone control has an own character at the center position of the **Bass** and **Treble** knobs too. If you would like to bypass, just turn down the **Bass** to 9 o'clock and set the **Treble** to 10 o'clock position. This setting gives you the most linear transmission of your instrument's sound.

#### 5.1.5 Volume

Controls the overall volume of the **Speaker Outputs**. The **DI-Out** is not affected by this knob.

#### 5.1.6 Mute

Mutes the **Speaker Outputs** and the **DI Out**. If the button is pressed, the Mute LED is red.

**Note:**

This Mute LED gives you additional information too, see below.

#### 5.1.7 DI Out

Balanced **DI Out** with Neutrik XLR connector. It gives a high quality line level signal to be used for PA or a recording system. The **Gnd Lift** disconnects pin 1 of the XLR connector.

**Note:**

- In most cases the **Gnd Lift** has to be unpressed! When you get ground loop, hum or buzz while connecting to PA or a recording system pressing the button may help to eliminate this.
- Ask the technician to switch off the phantom power on the mixing console before plugging the XLR cable!



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### 5.1.8 Mute LED

Multifunctional feedback LED.

Lights green:

- when the amplifier is switched on;

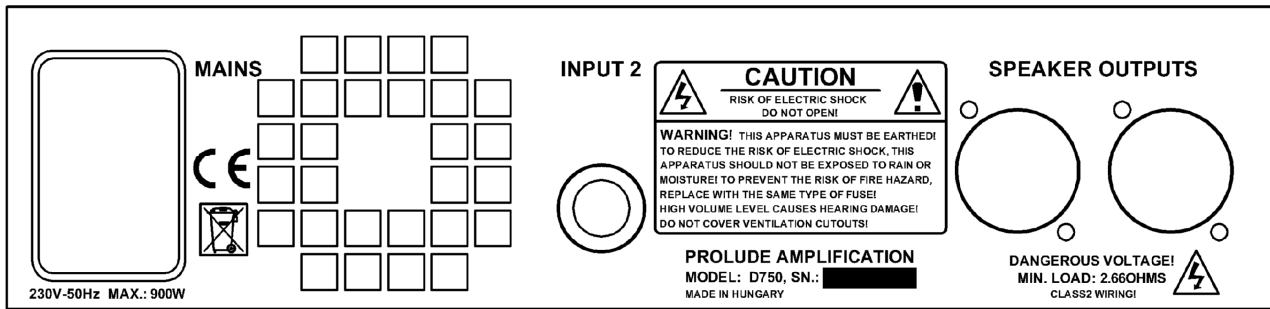
Lights red:

- during the ventilator test
- when the power stage is overheated or short circuit on **Speaker Outputs**

Lights green, but flashing red:

- power section is reached its maximum level, the limiter is active.

## 5.2 Rear panel



### 5.2.1 Mains

The mains appliance inlet and the mains switch. You switch on the amplifier with this switch. After switching on there is a ventilator test for about 4 – 5 seconds, after which the amplifier is in ready mode.

#### Note:

At the end of the ventilator test you will hear a tiny pimple from the speakers connected. It is normal.

#### Important!

Please avoid switching on and off the amplifier too often, especially after playing at high volume level! After playing at high volume level give the ventilator a few minutes to cool down the amplifier before switching it off!

This equipment should only be connected to 230 VAC, 50 Hz mains network!

You must use standard earthed mains cord.

The mains plug must be plugged into an appropriate outlet that is properly installed and grounded!

### 5.2.2 Input 2

Auxiliary input jack for line input. This connector can receive unbalanced source.

This input evades the tube preamplifier and not affected by the Bass and Treble controls.

### 5.2.3 Speaker Outputs

Neutrik Speakon - Jack combo outlets. They are connected parallel inside the amplifier. Both of speakon or 6.3mm jack plugs are suitable to connect speaker cabinets.

The minimum load impedance should not be less than 2.66 ohm.

#### Note:

The speakon connector is a more stable, robust and reliable solution. Use this - if you have one - instead of jack! Avoid long speaker cables and low quality plugs in order to maintain sound quality and volume. The amplifier can be used without speakers as well.

#### Warning!

There is dangerous voltage on the speaker output! Connect the cabinets to the amplifier before switching on and do not touch the hot pole of the speaker jack!

### 5.2.4 Ventilation cutouts

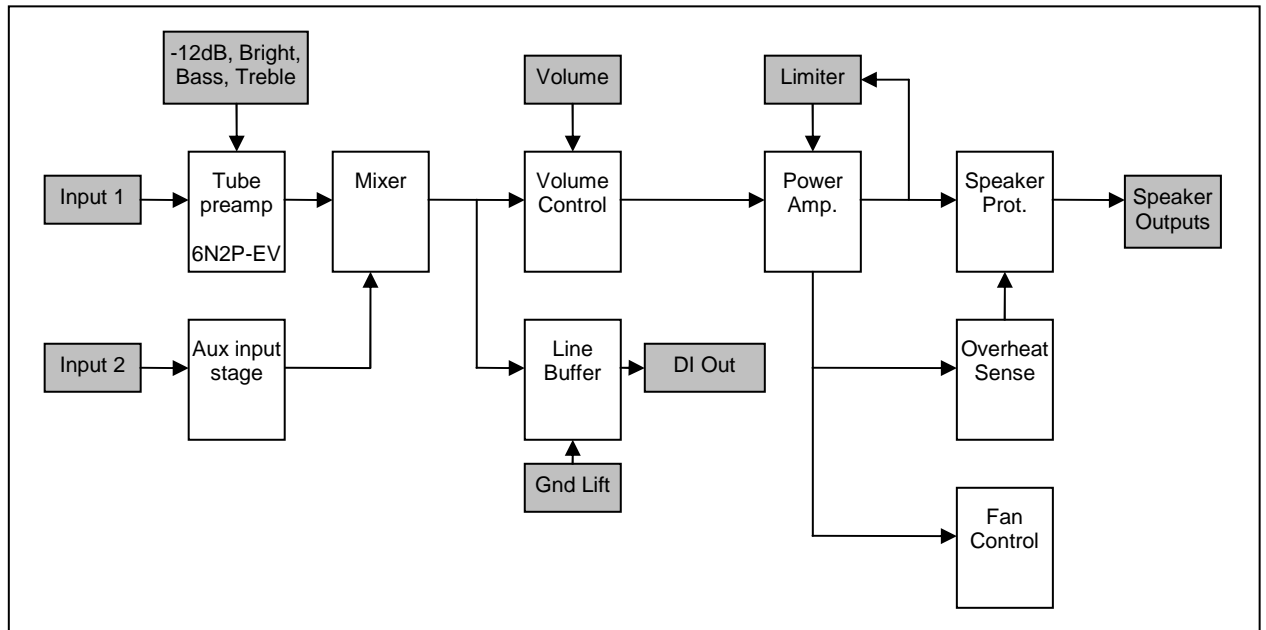
Do not cover the ventilation cutouts! Insufficient ventilating causes overheating, which may causes permanent damage to the power stage.

#### Note:

Overheating or fault of power stage is displayed by the Mute LED.

If this occurs, switch off the amplifier, wait for 30 minutes before then switching it on again! If the Mute LED stays lit after the ventilator test /4-5 seconds/ then the amplifier has to be brought to a qualified technician for repair.

### 5.3 Block diagram



### 5.4 Other functions, protections

#### 5.4.1 Short circuit protection

The amplifier contains a protection circuit against wrong / shorted / speaker cable or burnt speakers.

#### 5.4.2 Speaker protection

Protecting the cabinets from harmful direct current.

#### 5.4.3 Overheat protection

Due to insufficient ventilation, ventilator fault or too high environment temperature while playing at high volume, overheating may occur. In such a case the protection circuit stops the power section until the temperature of the power stage cools down. This is being displayed by the Mute LED.

#### 5.4.4 Ventilator control

The control of the cooling ventilator is based on the temperature of the power stage's heat sink. It automatically switches itself to high speed when the temperature reaches 50 °C and switches itself back to low speed when temperature decrease below 40 °C. Do not cover the ventilation cutouts!

## 6 Maintenance, cleaning

The amplifier has no need for particular maintenance.

Occasionally check the starting of the ventilator when you switch on the amplifier!

The preamplifier tube is a long life type, probably you will never have to replace it because of aging. However, if you feel you are losing sound quality you can easily check it by using the Input 2 on the back. Replacing tubes must be done by a qualified person. Only replace by using tubes of the same type.

Use only soft and dry or dampened cloth for cleaning. Avoid aggressive, caustic cleaning materials.

Budapest, 2018.04.14.