



USER`S MANUAL

# TITANIA

## POWER AMPLIFIER

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## 1 TECHNICAL DATA

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Type: Titania power amplifier

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Model: Titania PA, Evolution

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Max output power: 2x45W (Stereo) / 1x 90W (Mono)

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Circuit type: push-pull AB1 class

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Output impedance: 4 $\Omega$ /8 $\Omega$

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Inputs: 2xRCA

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Harmonic distortions THD: <0,1%

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Frequency response 18Hz-103kHz (-3dB)

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Power consumption: 225W

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Main AC fuse: 3,15AT, Vacuum tubes fuses: m100mA

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Net weight: 21 kg

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Dimensions (with tubes): 420x380x200mm

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Tubes : KT88 x4 (power output), ECC83 (pre-amp & drivers), automatic bias

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## 2 SAFETY TIPS

 In order to obtain the highest possible sound reproduction quality and for the sake of your own safety, please kindly refer to the following.

- Never turn on the amplifier without installed tubes and without hooked-up speakers.
  - Never place the Fezz Audio Titania power amplifier near heat sources, such as radiators, heaters or direct sunlight. Ensure adequate ventilation and airflow
  - We also warn against exposure of the amplifier to conditions such as very low temperatures and/or high humidity.
  - During normal operation, the vacuum tubes radiate significant amounts of heat - there is a risk of burns.
  - The amplifier should be plugged directly into a wall socket. If you must use an extension cord, please make sure that it has load parameters sufficient to ensure proper handling of current delivery to the device.
  - When cleaning, always disconnect the Titania amplifier from the power source. Use a dry, soft cloth. Do not use water or cleaning agents.
  - If your amplifier starts to misbehave or to work incorrectly, if it's temperature gets too high or you start feeling smoke - immediately disconnect the device from the mains.
  
  - Due to the risk of exposure to high voltages – please do not open the lid of the amplifier.
- ATTENTION: This warning remains in force also in a situation where the device is already disconnected from the wall outlet.
- Always replace fuses in accordance with the original, intended specification.
  - Do not make repairs on your own, or adjustments beyond those as described in this manual. Execution of any unauthorized repairs or modifications of the device result in a loss of warranty.

## 3 INTRODUCTION

Nowadays HiFi audio world becomes increasingly digital, Fezz does not forget about analog lovers.

New version of Titania power amplifier is based on the Titania tube amplifier. In standard equipped with anti-vibration feet, adapted to the weight of the device. Backlight logo. Easily accessible fuses protecting the device in case of a power tube failure. Power amp combines all its advantages. Openness, full bodied sound, yet with a remarkably neutral tone. Two modes: stereo and mono makes it very powerful and versatile.

## 4 INSTALLATION

### UNPACKING


Please kindly check if the packaging of the amplifier has not been damaged during transit. If you find any damages, please immediately contact your dealer. Remove the amplifier and accessories from the packaging. Make sure that the content is not damaged.

 Do not connect the device to the power supply if it has visible signs of damage.

### PACKAGE CONTENT

The package should contain:

- Fezz Titania PA vacuum tube amplifier
- vacuum tube of type KT88 - 4 pcs.
- vacuum tube of type 12AX7 - 2 pcs.
- power cord
- user's manual
- cotton gloves
- optional: vacuum tube protective cage

 If any of the above items are missing in your package, contact your dealer immediately.

## VACUUM TUBES INSTALLATION

Place the amplifier on a stable surface. Carefully remove the vacuum tubes from their packaging and install them in the appropriate sockets, as show below, and adhering to the numbering scheme as identified on the packaging.

**⚠ The pins in the base of each of the vacuum tubes are “coded”, and this has the result that the insertion of the vacuum tube into the socket is possible only in one correct and appropriate orientation. If, whilst inserting the vacuum tube you will sense resistance, and you can not push the tube into the socket, please check the orientation of its pins, rotate the tube to the correct position and try again.**

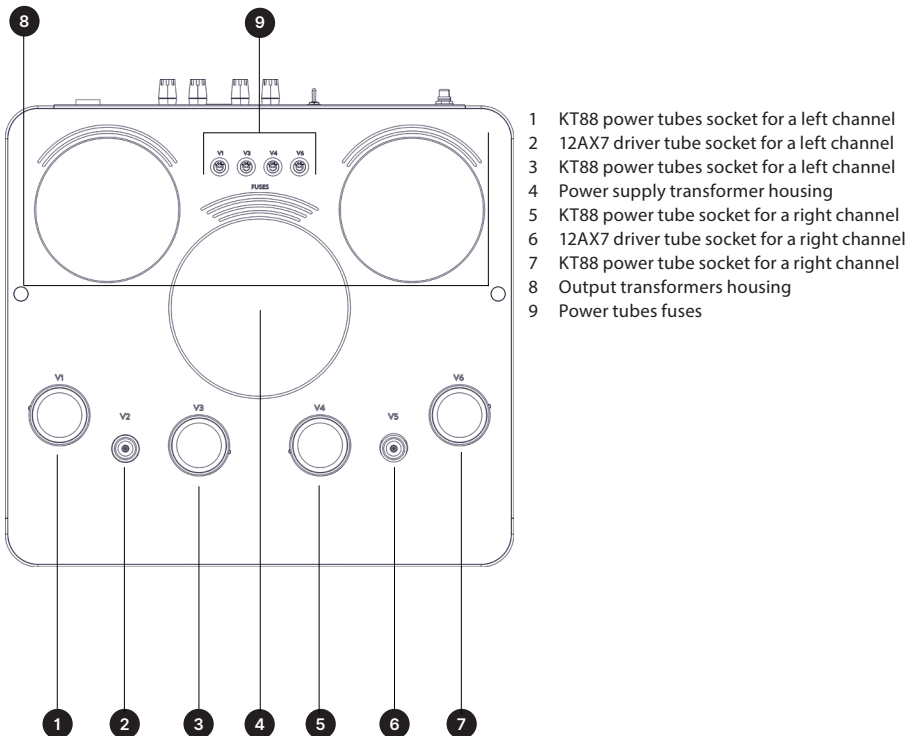
## WHERE TO PLACE YOUR POWER AMPLIFIER

Due to the presence of high temperatures during normal operation of the vacuum tubes, the location that you pick to place your amplifier should ensure ample ventilation, a free flow of air. Please maintain at least 10 cm clearance between the housing of the amplifier, together with the vacuum tubes, and other devices or elements of the interior.

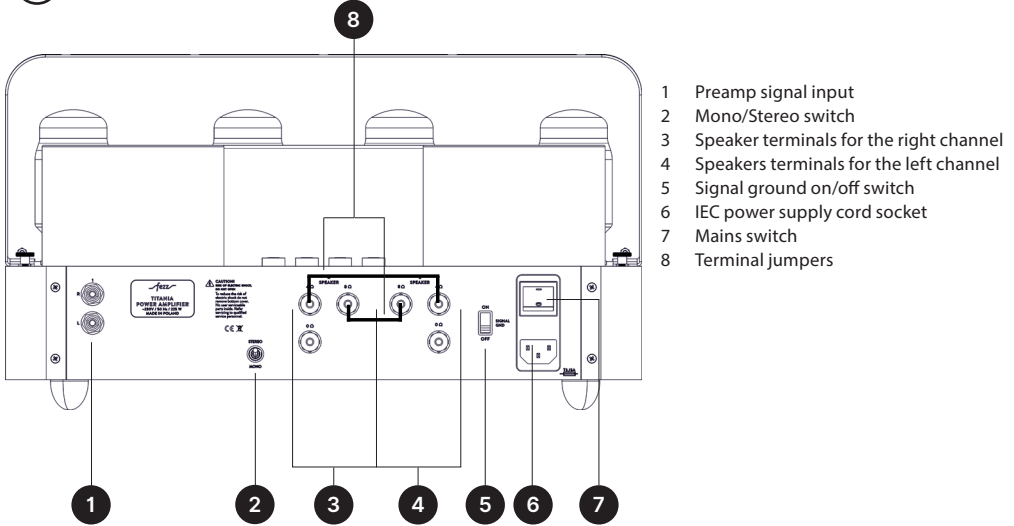
The sound quality may be degraded as a result of vibrations. Therefore we recommended to place the power amplifier on a flat and stable surface.

**⚠ Never place the amplifier near the source of heat.**

## DESCRIPTION OF THE POWER AMPLIFIER



## 5 INTERCONNECTIONS



The figure above shows the rear panel view of the power amplifier, together with a description of the inputs and outputs allowing for connection of the other elements of your audio system.

**⚠ To avoid electrostatic shock to the components of the power amplifier, please touch a grounded conductive surface before making any connections. Any and all connections must be made whilst the device is disconnected from the mains power supply. Before making any such connections, make sure that the amplifier is switched off.**

Follow the instructions below to connect your sound system correctly.

### STEP 1 SPEAKERS CONNECTIONS

Stereo mode:

Check the impedance of the speakers set that you own. Connect the speaker cable to the appropriate terminals on the rear panel of the amplifier. Depending on the impedance of the speakers that you own, connect it to the terminal marked either 4  $\Omega$  or 8  $\Omega$ . If your speaker impedance is 6  $\Omega$  - connect the speaker wire to the terminal 8  $\Omega$ .

Mono mode:

Bridge mono mode combines two amp channels into one mono, it gives much more powerful amplifier channel. Be sure your power amplifier is turned off. Set the MONO MODE switch to the "MONO" position and connect the speaker terminal using terminal jumper to the terminals marked 'L+' 4  $\Omega$  and 'R+' 4  $\Omega$  and second terminal jumper 'L+' 8  $\Omega$  and 'R+' 8  $\Omega$  ensuring that the 'L+' is connected to the '+' terminal on your loudspeaker and the 'R+' is connected to the loudspeaker's '-' terminal. See picture above.

**⚠ ALWAYS DISCONNECT THE TERMINAL JUMPERS WHEN THE POWER AMPLIFIER IS SET IN STEREO**

### STEP 2 AUDIO SIGNAL SOURCES CONNECTIONS

Connect the preamplifier output to the signal source in the Titania power amplifier input (IN)

In order to achieve the highest sound quality, use only high-quality RCA cables. Pay attention to the proper connection and distinction of the right (R) and the left (L) channels. For the best sound quality, we suggest using the Fezz FAC 01 interconnect cable dedicated for Fezz Audio vacuum tube amplifiers.

**⚠ To connect a turntable, you will need to use an external phono MM/MC preamplifier or turntable with a built-in preamplifier.**

## STEP 3 POWER CORD CONNECTION

Make sure that the power amplifier is switched off. Connect the power cord to the IEC socket on the rear panel of the power amplifier.

The power amplifier is designed to operate at a rated voltage of 230V / 50-60Hz. Connecting the device to a mains network with incorrect parameters can lead to damage that is not covered by manufacturers warranty.

## **6 FIRST POWER-UP AND GETTING**

Make sure that all of your wiring is connected in accordance with the information as provided above on page 9 of this manual. Turn on the mains power of the Titania power amplifier – the vacuum tubes shall begin to glow. Make sure that the sound source is turned on, playing, and then gradually increase the volume level in your preamplifier.

### BURING-IN PROCESS

Any tube amplifier/power amplifier requires an initial pre-heating (or „burn-in“) period, in order so that it achieves its full sonic potential. This is due to the presence of residua polarization of dielectric elements and due to a necessary stabilization of working parameters of the vacuum tubes. The stabilization of the electrical parameters of the system occurs in a natural process whilst playing music through your audio system.

A preliminary degree of pre-heating of the amplifier is reached after about 10 hours of quiet music playback.

The full sonic capabilities shall stabilize and unfold within a time-span ranging from 40 to 60 hours of music reproduction at a moderate volume levels.

### VACUUM TUBES REPLACEMENT

Your power amplifier is equipped with automatic bias module. It's necessary to use vacuum tubes that have previously been pre-selected and paired up in quads or pairs.

- 1) Disconnect the amplifier from the mains socket, the power supply network.
- 2) Remove the currently installed tubes from their respective sockets. Plug in the new replacement vacuum tubes in these sockets.

## **7 POWER TUBES FUSES REPLACEMENT**

Every power tube has its own safety fuse (symbol - m100mA). When power tube will fail. Safety fuse will blow and prevents any further damage of the amplifier. Please replace faulty power tube with new one. Please replace the power tube fuse with new m100mA if needed.

## **8 OPTIONAL EQUIPMENT**

### VACUUM TUBES PROTECTIVE CAGE

### PREMIUM TUBES SET

## 9 TROUBLE-SHOOTING GUIDE

If your amplifier does not work as it is supposed to, it is fairly easy to diagnose and remedy some of the common malfunctions, by following procedures as outlined in this following.

THE PROBLEM	PROBABLE REASON	SOLUTION
After turning the power switch to the ON position, the amplifier does not switch on.	A blown fuse	Please exchange to faulty fuse to a new one (3,15A T), within the fuse holder as depicted with index 4 on page 8 of this user's manual.
	An improper connection of the mains cable	Please check if the plugs of the mains cable are properly inserted into the electrical mains socket and to the socket as depicted with index 5 on page 8 of this user's manual.
The sound produced by the amplifier is distorted. A hum or pops have appeared and are coming from one of the channels.	An improper placement of the vacuum tubes in the sockets	Switch off the amplifier. Wait until the vacuum tubes cool down. Check for proper placement of vacuum tubes in their sockets. If necessary – correct their orientation.
	One of the driver tubes (12AX7) has lost its nominal working parameters	Switch off the amplifier. Wait until the vacuum tubes cool down. Exchange the positions of the driver tubes between channels. Turn on the amplifier. If the disturbing sounds have moved to the other channel, inform Your local Fezz Audio dealer about tube which need to be replaced.
	One of the Power tubes (KT88) has lost its nominal working parameters	Switch off the amplifier. Wait until the vacuum tubes cool down. Exchange the positions of the power tubes between channels. Turn on the amplifier. If the disturbing sounds have moved to the other channel, inform Your local Fezz Audio dealer about tube which need to be replaced.
	One of the power tube fails. It can cause fuse failure.	Please exchange a faulty tube and then exchange power tube fuse to a new one m100mA, within the fuse holder as described with index 9 at page 4 of this user's manual.

If you have verified the aforementioned situations, and your problem still persists, please contact your local Fezz Audio dealer.

