



# **MANUAL**

Warwick Amplification Power Amplifier Head

PA 300 - PA 500



## INTRODUCTION

Thank you for purchasing a Warwick Pro Series amplifier.

Unleash the full potential of your sound with this ultimate bass Power Amplifier head.

Power, versatility and precision in a compact format - the Warwick Amplification PA Series Bass Power Amplifier brings everything you need to elevate your bass playing experience. Designed for audiophiles and professional musicians alike, this powerhouse delivers crystal-clear low-end performance with unparalleled depth and precision. Whether you're gigging on stage or jamming in the studio, this amp head delivers unbeatable performance with features designed for the modern bassist. Tailor your tone with a 4-band EQ for precise sound shaping, mute your amp with the push of a button or use the LINE OUT connection to configure complex setups for studio or stage.

### **Precautions / Safety Instructions**

### **Power supply**

The amplifier is powered using an IEC power cable which supplies AC power to the unit. Connect the IEC power cable to a mains outlet with a protective earth connection.

Incorrect mains voltage may cause serious damage to the unit. Always check the mains voltage rating and the setting of the voltage selector switch on the amplifier before connecting the power cable. Unplug the unit when not in use or during lightning storms.

#### **Connections**

Always switch off the amp and connected devices before connecting or disconnecting cables. This will help to prevent malfunctions and equipment damage. For speaker connections: make sure to use dedicated high quality speaker cables and only connect cabinets equipped with speakers rated for at least the output power of the amp. Speakers with a higher rating are recommended to prevent damage to the speakers at high output levels. For all other input/output connections: use only high quality shielded audio cable to prevent noise issues.

### Cleaning

Clean only with a soft, dry cloth.

### Handling

Do not apply excessive force to switches or controls. Do not block ventilation openings. Install in accordance with the instructions. Do not allow paper, metal, dirt or other objects to get into the unit or its connections. Do not drop the unit or subject it to shock or excessive pressure. To avoid deformation, discoloration or other serious damage, do not expose this unit to the following conditions:

- direct sunlight
- excessively dusty or dirty environments
- heat sources
- high humidity or moisture

- strong magnetic fields
- strong vibration or shock
- extreme temperature

### Risk of electric shock

To reduce the risk of fire or electric shock, do not remove any screws or open the unit. There are no user serviceable parts inside the amplifier. Refer all servicing to qualified service personnel. Do not expose the unit to rain or moisture.

### **FCC** certification

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- · This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

### Volume warning

This amplifier is capable of producing high sound pressure levels. Prolonged exposure to these high sound pressure levels can cause permanent and irreversible hearing damage. Ear protection is recommended for prolonged use at high volume. If you experience hearing loss or ringing in your ears, consult a physician.



### Notes about disposal

This product carries the selective sorting symbol for Waste Electrical and Electronic Equipment (WEEE). This means that this product must be treated in accordance with European Directive 2012/19/EU in order to be recycled or dismantled to minimize its impact on the environment. The user has the option of returning the product to a competent recycling organization or to the retailer when purchasing new electrical or electronic equipment.



### **Main Features**

- · bass power amplifier head
- · solid-state design, class D amplifier circuitry
- power output: PA 300: 300 W @ 4  $\Omega$  / 180 W @ 8  $\Omega$ 
  - PA 500: 500 W @ 4  $\Omega$ / 300 W @ 8  $\Omega$
- 4-band EQ with +/- 15 dB cut/boost for each band
- LineOut jack
- · sophisticated protection features

### FRONT PANEL



**Tone Stack**: The active 4-band EQ section provides up to +/- 15 dB of cut or boost for each band. Controls set to the center position (detent at 12 o'clock) provide a flat / neutral response for that band. Turning the knobs clockwise boosts the frequency band, while turning the knobs counterclockwise cuts the band.

- 1. BASS: Cuts or boosts bass frequencies around 50 Hz.
- 2. LO MID: Cuts or boosts mid frequencies around 250 Hz.
- 3. HI MID: Cuts or boosts mid frequencies around 1 kHz.
- **4. TREBLE:** Cuts or boosts treble frequencies around 6.5 kHz.
- **5. Clipping LED:** This LED lights up when the signal going into the power amp section is clipping, i.e. distorted. To prevent clipping, reduce the input signal coming from the preamp. Adjust your settings so that the CLIP LED illuminates only during strong signal peaks, but not continuously. Clipping will not harm your amp (see *Protective Circuits.*)
- **6. VOLUME**: The volume control adjusts the output signal level. Turn Volume fully counterclockwise before turning on the power and slowly increase the volume until the desired level is reached.
- 7. MUTE switch: Mutes the SPEAKER and LINE OUT outputs. MUTE is active when the button is lit.
- **8. Power Switch:** This switch turns the amplifier on (I) or off (O). Connect the power cord from the mains outlet to the amplifier before turning this switch. To unplug the amplifier, turn the switch off first, then unplug the power cord from the wall outlet, then unplug the power cord from the amplifier.
- 9. Power indication: The WARWICK logo glows in amber when the amplifier is powered on.



### **REAR PANEL**



- 1. AC power socket: Use the supplied power cord to connect your amplifier to a suitable mains outlet. Always make sure to check the voltage ratings on the unit before connecting the power cord. Incorrect voltage may cause serious damage to the unit.
- 2. Voltage selector switch: Select the mains voltage (120/230 VAC) according to your location. This amplifier does not support voltages outside the range indicated on the rear panel.

**WARNING**: Proper positioning of the rear panel voltage selector switch (120 V / 230 V) should be verified before connecting the amplifier to AC power. Operating the unit with the switch in the wrong position will result in permanent damage to the amplifier. Please contact the local power provider, if in doubt about the AC line voltage in your country of usage.

- **3. LINE IN:** 6.35 mm (1/4") TS jack for connecting your preamp. We recommend using high-quality audio cables for the best sonic performance and reliable connection.
- 4. SPEAKER out: Speaker Twist connector for connecting an external speaker cabinet.

  The minimum load for the amplifier is 4 Ohm. The amp can also be used without speakers, e.g. in studio settings using LineOut only.

Be sure to use a dedicated high quality speaker cable and to connect only a cabinet equipped with speakers rated for at least the output power of the amplifier. Speakers with a higher rating are recommended. Speakers with a lower rating may get damaged at high output levels.

- **5. LINE OUT:** 6.35 mm (1/4") TS jack for outputting a line level signal to a separate amplifier, mixing console or other suitable audio equipment. LINE OUT is muted by the MUTE switch.
- **6. Serial number:** This is the serial number of your amplifier. You will need this number to register your warranty. Scanning the QR code will return the serial number.



# **OPERATION**

### **Quick Start**

- 1. Connect the speaker: Connect a speaker cabinet to the speaker output using a compatible speaker cable with a Speaker Twist connector. The minimum load for the amplifier is 4 Ohm. You can operate the amplifier without speakers connected if you plan to use only the LINE OUT output.
- 2. Connect the power: Make sure the voltage selector switch is set to the correct voltage and that the power switch is in the "off" position, and then connect the supplied power cord from the AC power input of the amplifier to the wall outlet.
- 3. Turn Volume to zero and turn the power switch on.
- **4. Connect a preamplifier:** Connect the output of your preamp to the LINE IN jack on the back panel.
- 5. Slowly adjust **Volume** to a suitable level and adjust the **EQ controls** to your liking.
- 6. Start playing!

### Automatic shutdown

If no input signal is detected for approximately **40 minutes**, the amplifier will automatically enter a power saving mode. All lights will turn off and the power stage will shut down to conserve power.

The amplifier returns to normal operation a few seconds after an input signal is detected.

### **Protective Circuits**

Your new Warwick amplifier is equipped with several protective circuits to prevent malfunctions under unsuitable operating conditions.

### Short circuit protection / DC output protection

The power amplifier is protected against short circuit on the speaker output. When shorted, the amp will try and drive the shorted output line for a few milliseconds once every second until the short circuit has been removed.

The speaker outputs are also protected against DC on the speaker line via a DC fault detector and speaker relay. The outputs will be shut down and you may have to re-start the amplifier after removing the cause of the problem.

#### Overtemperature

The amplifier protects itself from excessive temperature by but toggling the fan speed from low to medium to high speed. In the event that excessive temperature can't be prevented (due to blocked ventilation openings or a defective fan, for example) the unit will turn off the power amplifier when its temperature reaches 90°C and will return to normal operation once the internal temperature returns to 55°C or below.

Note that the fan is always running at low speed and can barely be heard. This ensures a long product life by keeping temperatures inside the product cool and extending the life of parts whose longevity is adversely affected by heat.

#### Overload

There is no limiter in the power amp section. Instead there is a "soft clipping" stage preceding the amplifier that begins to slowly square off the waveform so that the amplifier itself never actually hard clips. This soft clipper allows the amp to be driven pretty heavy into clipping without sounding too bad.

Activation of the soft clipping stage is indicated by the Clipping LED, but the amplifier will not be harmed by this.



### **Troubleshooting**

### Amplifier does not turn on

- Check the power cord connection.
- Check the power outlet (building fuse box).
- If the amp is in power saving mode, it should wake up as soon as an input signal is detected.

### No sound

- Check the speaker connection.
- Make sure the MUTE button is not lit.
- Check the Volume setting.
- Check the volume controls on the preamp, instrument or pedals in front of your preamp.

# **SPECIFICATIONS**

	PA 300	PA 500
Output power	300 W @ 4 Ω 180 W @ 8 Ω	500 W @ 4 Ω 300 W @ 8 Ω
Power consumption	100 W	150 W
THD at rated power	<1%	<1%
Input voltage	120 - 240 VAC / 50 - 60 Hz 230 V EU version incl. power cord with EU plug (Warning: The device can only be used in countries with 120-230 V mains voltage. Other mains voltages can damage the device.)	
Typical THD	< 0.3% @ 150 W (1/2) < 0.05% @ 30 W (1/10)	< 0.3% @ 250 W (1/2) < 0.03% @ 50 W (1/10)
Noise floor	< -90 dBr	
Power response	+0 dBr / -4 dBr 10 Hz to 20 kHz	
Tone controls	Bass: +/- 15 dB @ 50 Hz Low Mid: +/- 15 dB @ 250 Hz High Mid: +/- 15 dB @ 1.0 kHz Treble: +/- 15 dB @ 6.5 kHz	
Dimensions (L/W/H)	250 x 270 x 63 mm 9.84" x 10.63" x 2,48"	
Weight	3.01 kg / 6.63 lbs	3.13 kg / 6.90 lbs
Accessories	Manual, AC power cable (3 m / 9 ft)	



Note: The manufacturer reserves the right to change these specifications without notice.