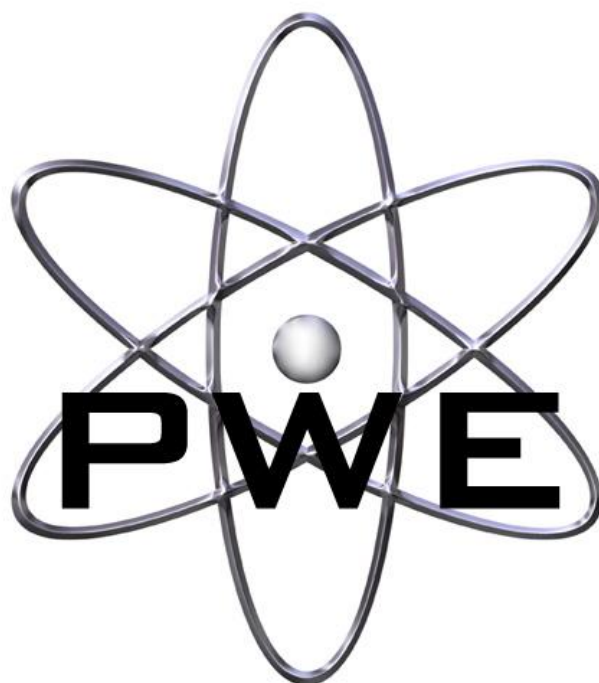


# PARTICLE SMASHER



PAINTING WITH ELECTRONS

Congratulations on your purchase of the PWE Particle Smasher guitar amplifier. This amplifier has been hand built and thoroughly tested to provide years of trouble free enjoyment. Please take a moment to read this manual in order to get the most out your Particle Smasher amplifier.

## **Features and Specifications**

Preamp tubes- 4 X 12AX7 (JJ)

Power section- 2 X JJ E34L

Fully regulated DC filaments (preamp tubes)

Custom made power and output transformers

Heavy duty speaker impedance switch

**Before you begin, please insure that the amplifier is plugged into an appropriate (4, 8 or 16 ohm) speaker cabinet using the speaker cable provided at time of purchase. Impedance switch setting must match the impedance of the speaker cabinet. Failure to do so may result in damage to amplifier components.**

### **Front Panel:**

**See the last page of this manual if your front panel has different names for the controls than what you see here.**

**Input-** this is where the guitar is plugged into

**Critical Mass-** Selects the operating point of the preamp. Turning this switch clockwise will dramatically alter the gain and tonal characteristics of the preamp (4 positions)

**Hyperon-** Front end gain structure switch (4 positions). Turning this switch clockwise will increase the gain of the first preamp stage.

**Tachyon-** Bright switch (4 positions). Turning this switch clockwise will add highs and shimmer to the sound

**Gain-** Controls the amount of signal being fed to the next stage.

**Treble/Mid/Bass-** EQ section

**Level-** Controls the overall output to the poweramp

**Presence-** Controls high frequency response of power section

## **Back Panel:**

**AC Plug-** 110-120 volts only.

**Mains Fuse-** 2.5 amp slo-blo (50 watt) 5.0 amp slo-blo (100 watt)

**HT Fuse-** 0.5 amp slo-blo (50 watt) 1.0 amp slo-blo (100 watt)

**Initiate-** Power on-off switch

**Engage-** Standby-High Voltage on-off switch

**Presence-** (Global Presence) Controls high frequency response of power section

**Decelerator-** Power output control. Turning this control clockwise will increase the power output. 4 positions 15-25-35-50 watts (moving clockwise on 50 watt models)

**Footswitch Plug-** 4 pin locking plug for the footswitch cable

**FX Loop-** This is a **series loop** with send and receive controls. Transmit is the send level, receive is the return level. The **TRANSMIT** control is used to send the appropriate signal to the effect so that the effect does not distort. The **RECEIVE** control is used to bring the level back up to match the dry signal level. To match dry/wet levels, use the bypass switch on the back of the amp and turn the loop on and off while checking levels. Adjust until levels match.

**Speaker Impedance Switch-** Can be set for 4-8-16 ohm operation (moving clockwise) to match the speaker cabinet impedance. This switch sets the total load. Example- 2 X 8 ohm cabinets= 4 ohms, 2 X 16 ohm cabinets=8 ohms. Either jack may be used and the switch setting must match the total impedance of the speaker cabinet(s). If in doubt, please contact us for information.

## **Top Panel:**

**2 DC Jacks** provide power to the front panel lights on the amplifier and to the speaker cabinet (if present). Use only the supplied cables for this purpose. **NOTE TO TECHNICIANS: UNPLUG ALL DC JACKS BEFORE REMOVING THE CHASSIS FROM THE HEADSHELL. FAILURE TO DO SO MAY RESULT IN DAMAGE TO THE DC PLUGS. DO NOT USE THESE JACKS TO POWER ANY OTHER DEVICES.**

**Bias Control-** This control is placed on the top of the chassis for the qualified technician's convenience. This control is **NOT USER ADJUSTABLE. DO NOT ATTEMPT TO ADJUST THIS CONTROL FOR ANY REASON.**

## **Warranty**

This device is covered by a 2 year warranty. PWE Amplification shall, at its discretion repair or replace any defective components. Defective products must be shipped to PWE Amplification prepaid, for evaluation. If the defects are found to be manufacturing defects and not the result of abuse we will repair the unit at no charge (excludes shipping). This warranty is valid in the continental U.S.A. and Canada only.

This warranty covers manufacturing defects only and does not cover the following:

Wear and tear on tubes, potentiometers, switches, jacks or any other damage resulting from abuse and normal wear and tear.

Do not operate this device in damp or wet locations. Doing so may result in serious injury and severe damage to property.

Do not under any circumstances attempt to repair or modify this device. Lethal voltages are present that may result in serious injury or death. Refer all servicing to a professional electronics technician. PWE Amplification shall not be held responsible for injuries resulting from improper use or servicing of its products.

Do not use attenuators on the speaker outputs. Doing so will void your warranty and you agree to do so at your own risk.

**NO USER SERVICEABLE PARTS INSIDE. DO NOT OPEN. DO NOT ATTEMPT TO REPAIR THIS DEVICE. LETHAL VOLTAGE PRESENT INSIDE THIS DEVICE. REFER ALL SERVICING TO A PROFESSIONAL TECHNICIAN.**

For all questions regarding PWE products please contact us.

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