



*Modular Series*

## **PS 1 Preamplifier Power Supply**



### **User's Manual**

Rev. July 24/03

Mapletree Audio Design  
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## **Introduction**

The Mapletree Audio Design *PS 1* power supply provides +12 VDC (regulated) heater supply voltage and +200 VDC B+ plate supply voltage at a current of 15 mA (see specifications).

## **Power Supply Connections**

Use of a separate power supply chassis with a phono/line preamplifier allows separation between the two units and eliminates induced hum originating from power supply circuitry and components. The MAD *PS 1* power supply is recommended for the *Ultra 4A*, or *Line 2A*. The power connections to the preamplifier chassis are made through a special 3-conductor power cord that plugs into jacks located on the rear panels of the power supply and preamplifier chassis. The power supply common connection for the output jack is connected to both the chassis and the ac line ground pin.

**CAUTION: Do not operate a power supply when it is not connected to the preamp. Damage of components may result.**

Once the interconnecting power cord is securely attached between the power supply and preamp and the line cord is plugged in, the rocker switch is used to activate the power supply. The green pilot lamp on the front panel indicates that the unit is on. It takes about 30 seconds for the tubes to reach operating temperature ready for use. During operation, is it normal for the power supply chassis to become warm to the touch.

The power supply is protected by a 0.5 A/250 V fast-acting fuse which can be accessed by unscrewing the fuse holder on the rear panel of the power supply. Under normal conditions, it should not be necessary to replace the fuse. If power fails to come on, you can check the fuse and replace with a spare if necessary. If the fuse blows a second time, you should not try to operate the unit. Contact Mapletree Audio Design for information regarding service.

If you want to use the power supply with other preamplifiers:

1. Make sure the power requirements are within the ratings given in the specifications for the *PS 1*.
2. Make sure your preamp can use a common power connections between the heater and B+ supplies.
3. If you wish to install a different power cable plug, the cable color code is as follows:  
black: common; white: +200VDC; green: +12VDC
4. *Note that the warrantee does not apply when used with non-MAD preamp units.*

## **Specifications**

Input: 115-125 VAC, 50-60 Hz, 12 W  
Heater voltage: +12 VDC regulated @ 1 A max  
Plate voltage: +200 VDC  $\pm 15\%$  @ 25 mA max

## **Warrantee**

Assembled MAD components are warranted for 2 years to the original purchaser for failure of parts (excluding tubes) and workmanship. Tubes are warranted for 90 days exclusive of shipping cost. Service, including parts and labor (but excluding shipping), is free within the warrantee period.

## Parts List

Reference No.	Description
BR1	3A/200V diode bridge
C1	47uF/350V electrolytic capacitor
C2	47uF/250V electrolytic capacitor
C3	4700uF/25V electrolytic capacitor
D1-D4	FR107 fast silicon diodes 1000V/1A
D5	1N4007 diode
D6	10 mA LED
FU1	0.5A/250V fast action fuse
J1	3-pin chassis jack
J2	IEC ac line receptacle
IC1	7812 voltage regulator
R1	7.5K 3W 5% metal oxide resistor (or 2-15K 2W in parallel)
R2	240K 1W carbon resistor
R3	1K 1W 5% carbon film resistor
SW1	SPST power switch (250 V rated)
TR1	14 V/1.44 A filament transformer
TR2	230 V/25 mA power transformer

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Rev. Feb. 20, 2003

