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Notice

Power supply unit should be plugged into the amplifier unit with the tubes in the correct sockets BEFORE POWERING UP.

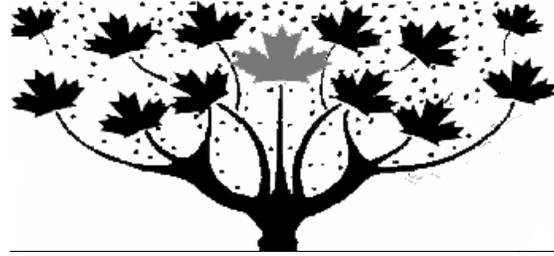
Please allow at least 12 hours for the tubes to burn in since they are new. It is not uncommon to hear crackling and metal expanding for new tubes.

Stacking amplifier on top of the power supply will increased hum. A magnetic shielding plate, 1/8" to 1/4 " "steel plate", with acoustic dampening, felt/rubber, can be used between the amplifier and power supply to reduce the hum. Adding additional pates reduces hum further. If this is still an issue separate the power supply unit from the amplifier unit.

Do not clean with alcohol or paint thinner. Water damp cloth is sufficient or dust off.

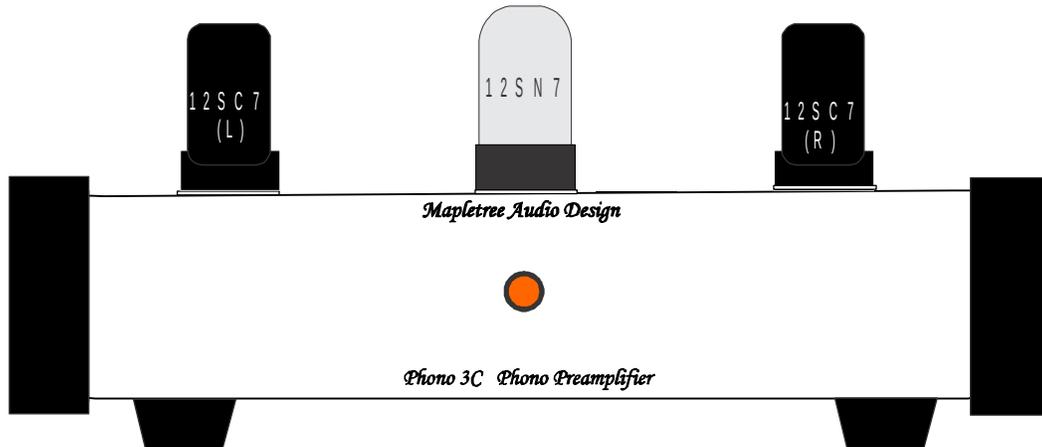
Read Manual before operation.

M A P L E T R E E



A U D I O D E S I G N

Phono 3C Phono Preamplifier



User's Manual

Revised Mar. 19/17

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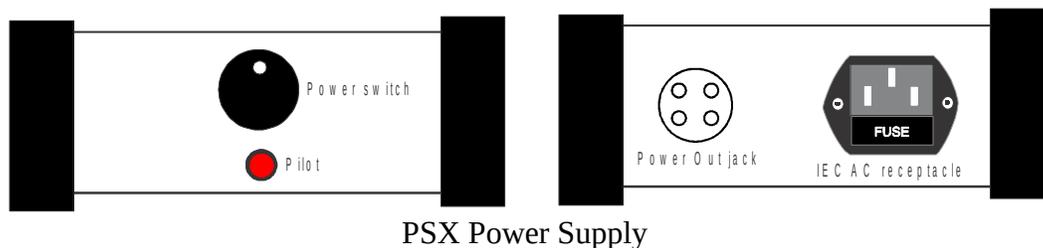
Introduction

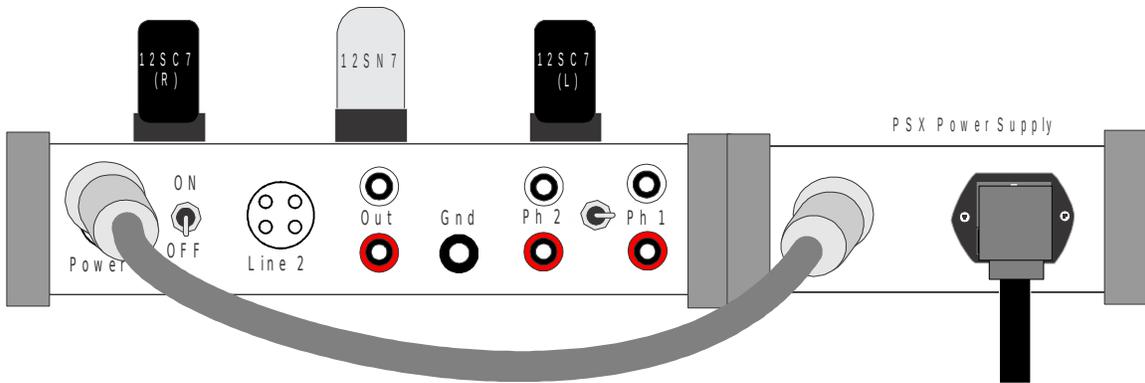
The Mapletree Audio Design *Phono 3C Phono Preamplifier* is part of the modular series of components that includes the *Line 2C* line preamp, the *Ultra 4C* phono/line preamp, and the *PS 2C* and *PSX* power supplies. The features of the *Phono 3C* include:

- ◆ Compact chassis layout with separate power *supply for low noise*.
- ◆ Exclusive use of New Old Stock (NOS) 12SN7 and 12SC7 octal tubes, known for low distortion and musicality.
- ◆ Low output impedance (<2.5K Ω).
- ◆ RIAA equalization within 0.5 dB, 20 Hz – 20000 Hz.
- ◆ Use of polypropylene film signal coupling capacitors.
- ◆ 40 dB gain suitable for all MM cartridges when used in conjunction with a line preamp with at least 10 dB gain.
- ◆ Selector switch for two separate phono inputs.

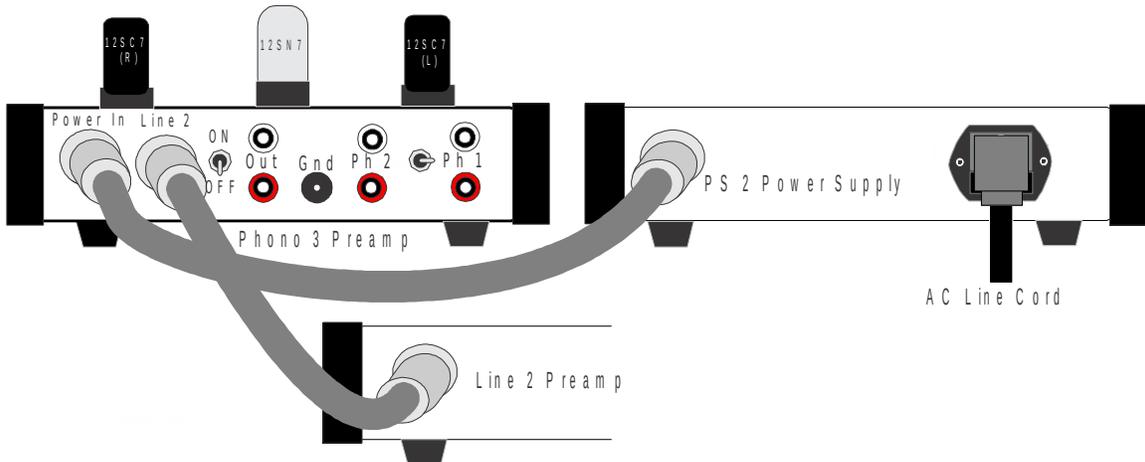
Power Supply Connections

For operation with a separate line preamp (other than the *Line 2C*), headphone amplifier or integrated amplifier, the *Phono 3C* is supplied with the *PSX* power supply, which provides high voltage (B+) and heater voltage (A+) for the preamp. The physical separation of amplification and power supply units eliminates induced hum originating from power supply circuitry and components. The *PSX* provides 12 VDC at 0.6 A for the tube heaters and 200 VDC at 15 mA for the B+ plate voltage. A power interconnect cable provides power from the *PSX* to the *Phono 3C* chassis (“Power In” jack).





For use with a *Line 2C/PS 2C* line preamp/power supply, the power interconnect cable is connected from the *Phono 3C* to the *PS 2C* power supply and the *Line 2C* preamp is connected to the second power socket on the *Phono 3C* as shown below. When not using the *Phono 3C*, the power switch on the rear panel should be turned OFF.



The power supply chassis is connected to the AC line ground but is otherwise isolated from the preamp chassis, which is connected to the signal ground. This eliminates the possibility of ground loops between the two chassis, through the signal interconnect shield and the ac line ground circuit, which can produce hum.

CAUTION: Do not operate a power supply when it is not connected to a preamp. Damage to components may result from operating the power supply with no load.

Once the interconnecting power cable(s) are securely attached (use of the locking rings is recommended) between the power supply and the preamp(s), and the line cord is plugged in, the power supply ac power switch may be turned on.

The pilot lamp on the power supply and the *Phono 3C* chassis indicate that the power supply is on and the preamp is active. 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 quite warm to the touch.

The *PSX* and *Line 2C* power supplies are protected by 20mm, 1 A, 250 V fast-acting fuses that can be accessed by removing the fuse drawer from the ac receptacle after disconnecting the ac line cord. 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. A spare fuse is also located within the fuse drawer. If the fuse blows a second time, you should not try to operate the unit. Contact Mapletree Audio Design for information regarding service.

Input/Output Connections

RCA jacks are provided for two stereo phono inputs, selectable using the toggle switch located between them, and one stereo output. The same ground binding post is used for both inputs. Left channel jacks (white) are uppermost.

Tubes

The vacuum tubes supplied are new-old stock (NOS) and have been pre-tested. A burn-in period of several hours may be needed to achieve the best sonic performance. Tube life should be thousands of hours. Aging tubes may result in a reduced gain in one or both channels or an increase in noise levels. Infrequently, a heater may burn out which is indicated by total loss of sound. Replacement tubes can be obtained from several suppliers in the U. S. and Canada. Some listeners enjoy trying different brands and variants of tubes. The highly regarded 12SX7GT is equivalent to the 12SN7GT.

Warranty

Mapletree Audio Design warrants the materials and workmanship (parts and labor) for a period of 2 years to the original purchaser. Tubes are warranted for 90 days. Electrolytic capacitors are heat sensitive with lifetimes that vary with usage and are not covered by the warranty. Warranty service does not include shipping costs.

Phono 3C Specifications

RIAA equalization: 20 Hz–20 kHz \pm 0.5 dB (typically \pm 0.3 dB)

Gain: 40 dB \pm 0.5 dB with 470K load (connected to *Line 2B*)

Output impedance (1 kHz): 2.5 k Ω

Input impedance: 47 k Ω for both inputs

Hum and noise at output: less than 2 mV rms

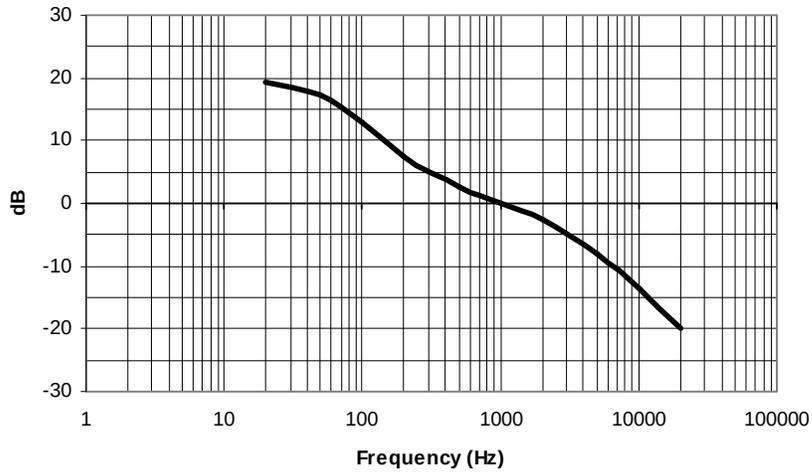
Phase: inverting

Power requirements: 30 W (12 VDC@0.6 A; 200 VDC@10 mA)

Phono 3 Equalization (average of L and R)

Gain = 40 dB +/- 0.5 dB

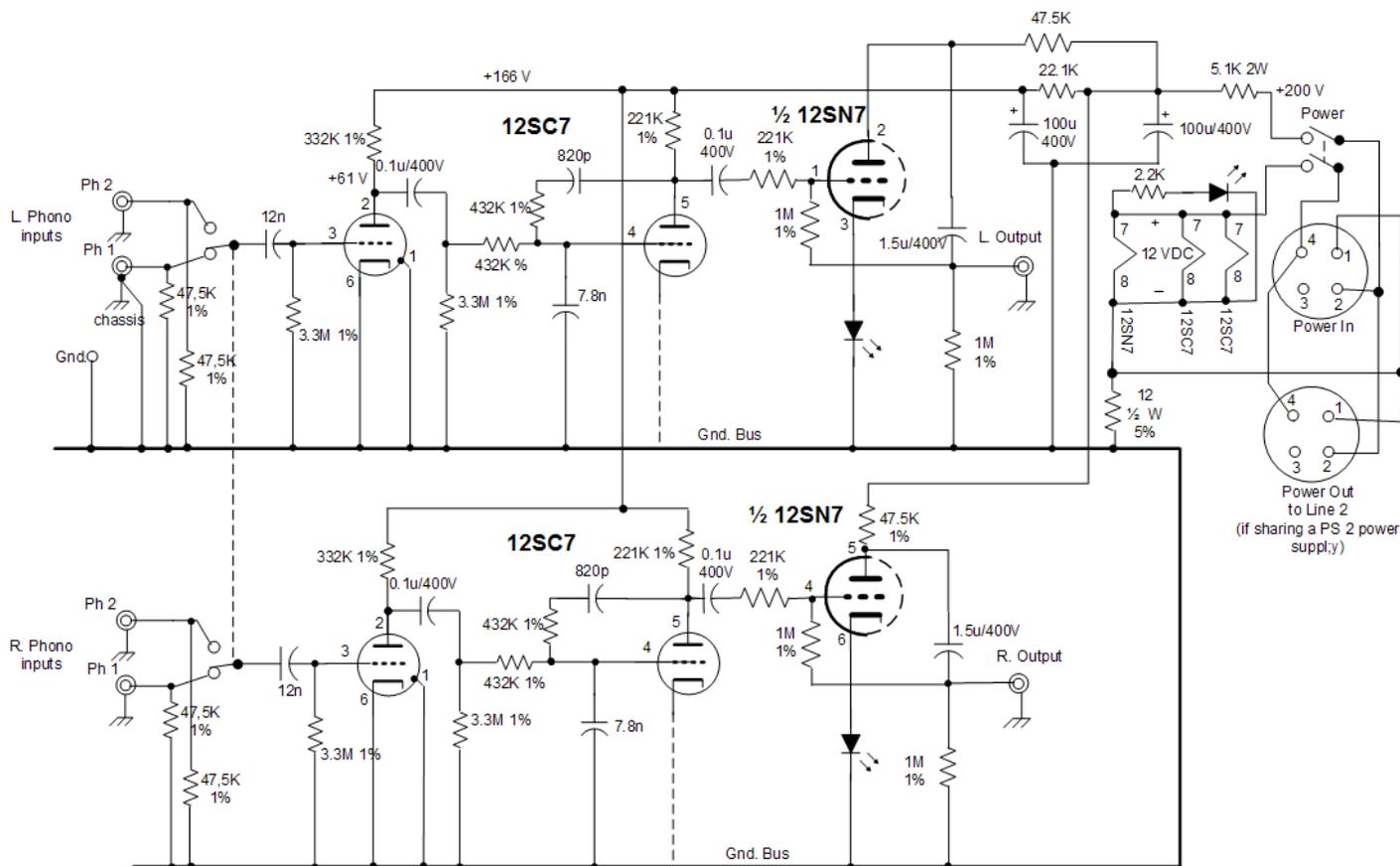
Hum and Noise: < 2 mV



Mapletree Audio Design Phono 3C Preamplifier

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Mapletree Audio Design Preamplifier Power Supply PSX

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