



## ***L2X Stereo Line Preamp/Buffer***

### ***PSX Power Supply***



## **User's Manual**

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## Introduction

The Mapletree Audio Design *L2X Stereo Line Preamplifier/Buffer* is a streamlined version of the *Line 2B SE* line preamp without the dual heater voltage switch and balance control. Nichicon polypropylene film capacitors and Alpha carbon volume control are also employed. The *L2X* is matched to the compact *PSX* power supply that can be located remotely from the preamp itself. The power supply features an all-solid-state full-wave rectifier using high-speed diodes, and an unregulated dc heater supply. Other features include:

- ? ? Compact chassis layout and separate power supply for low noise. Noise is less than 200  $\mu$ V.
- ? ? Exclusive use of NOS 12SN7GT octal tubes, known for low distortion and musicality.
- ? ? Two switched inputs with user-specified gains of 0 or 10 dB. Unity gain (0 dB) is available for buffer use, with the *L2X* inserted between the source and an integrated or power amp where additional gain is not required.

## Power Supply Connections

The Mapletree *L2X* consists of a preamplifier chassis with provision for connection to the separate *PSX* power supply. This allows separation between the two units and eliminates induced hum originating from power supply circuitry and components. The Mapletree *PSX* power supply provides 12 VDC at 0.6 A for the heater supply and +250 VDC at full load (12 mA) for the B+ plate supply. 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.

**CAUTION: Do not operate the power supply when it is not connected to the preamp. Damage of components may result. Do not use the *PSX* power supply for any other preamp. The current ratings are for the *L2X* preamp only.**

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

The power supply is protected by a 1 A, 250 V fast-acting fuse located inside the power supply chassis. 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 if necessary. Wait 60 sec with the unit unplugged before removing the bottom cover. 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**



The signal input/output jacks are located on the rear panel of the preamplifier chassis. RCA jacks are provided for two stereo line inputs, and one stereo line output. The line input source selector switch is located between the input jacks. Each input gain is custom specified to be either 10 dB or 0 dB (unity gain) at full volume. The corresponding input resistance is 100 k $\Omega$  or 470 k $\Omega$  respectively, which provides minimal loading for any line source such as CD/DVD player, tape deck, tuner, or PC sound card. The line output impedance is less than 500  $\Omega$ , which is suitable for connection to a power amplifier through cables up to 10 ft in length.

### **Preamp Controls**

The front panel volume control acts on both channels.

### **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. Mapletree Audio Design will attempt to provide replacement tubes to customers at cost plus shipping. Some listeners enjoy trying different brands and variants of tubes. The highly regarded 12SX7GT is equivalent to the 12SN7GT.

### **Specifications**

**Frequency response (100 k $\Omega$  750 pF load, 1 V output):** 12 Hz–20 kHz –0.5 dB

**Maximum input voltage:** 5 V (rms)

**Voltage Gain (100 k $\Omega$  load, 1 kHz):** 10 dB or 0 dB (for use as a buffer)

**Output impedance (1 kHz):** 450 $\Omega$

**Input impedance (1 kHz):** 100 k $\Omega$  (10 dB gain) or 470 k $\Omega$  (0 dB gain)

**Hum and noise at output (max volume):** less than 200  $\mu$ V rms

**Phase:** Inverting

**Power consumption:** 20 W

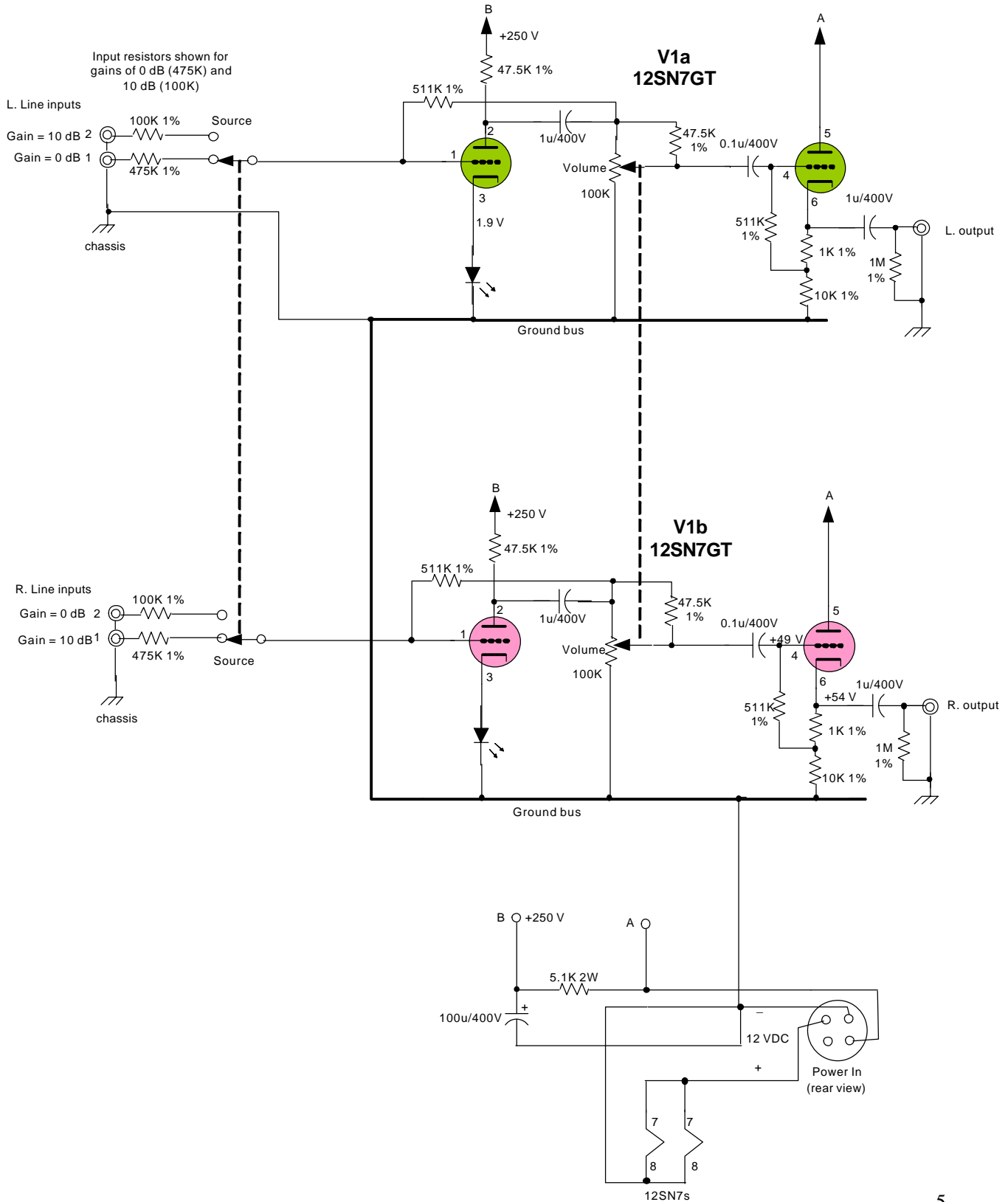
### **Warranty**

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.

# Mapletree Audio Design L2X Stereo Line Preamp

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# Mapletree Audio Design Preamplifier Power Supply PSX

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