#### Rated Output Voltage

F = 1KHz:

MC1 input to output: 0.135 Volts RMS.

MC2 input to output: 0.135 Volts RMS.

MM input to output: 0.135 Volts RMS.

#### Voltage Gain

F = 1KHz:

MC1 input to output: 3,560 + 2% or 71 + 0.2dB

MC2 input to output: 970 + 2% or 59.7 + 0.2dB.

MM input to output: 100 + 2% or 40 + 0.2dB.

#### **RIAA Accuracy\***

From 20 Hz - 20 KHz: better than + 0.05 dB/-0.3 dB, typically.

#### Phono Overload

Input voltage @ F = 1KHz for 1% THD+N:

Phono MC1: 14 millivolts RMS, typically.

Phono MC2: 45 millivolts RMA, typically.

Phono MM: 425 millivolts RMS, typically.

#### Total Harmonic Distortion from 20 Hz - 20 KHz; RIAA de-emphasis

Vout=0.135 Volts RMS:

MC1 input to output: no more than 0.1%.

MC2 input to output: no more than 0.07%.

MM input to output: no more than 0.04%.

Vout=20 Volts RMS:

MC1 input to output: no more than 1%.

MC2 input to output: no more than 1%.

MM input to output: no more than 1%.

## Inputs

Unbalanced: gold plated single-ended RCA connectors.

#### Input Sensitivity

Vout=0.135 Volts RMS. F = 1KHz:

MC1 input: 0.038 millivolts RMS + 2%.

MC2 input: 0.14 millivolts RMS + 2%

MM input: 1.35 millivolts RMS + 2%.

## Input Impedance

F = 1KHz:

MC1 input: 31.5 Ohms, typically.

MC2 input: 430 Ohms, typically.

MM input (standard factory adjustment): 47 KOhms shunted by 200 pF.

MM impedance load settings: 100 Ohms, 10 KOhms, 47 KOhms, 75 KOhms, 100 KOhms

MM capacitance settings: 100 pF, 150 pF, 200 pF, 300 pF, 400 pF

### Outputs

Unbalanced: gold plated single-ended RCA connectors.

# Corrected Output Impedance

Typically 1.3 KOhms.

### Noise

Signal-to-noise ratio, below 1 Volts RMS output, A unweighted:

MC1 input to output (shorted input): better than 78dB.

MC2 input to output (shorted input): better than 79.5dB.

MM input to output (shorted input): better than 81.5dB

### Absolute Phase

MC1 input to output; non-inverting.

MC1 input to output; non-inverting.

MC2 input to output; non-inverting.

## Operating Temperature

4 to +104 degrees Fahrenheit (-20 to +40 degrees Celsius) ambient.

### Power Supply

Each LP1 contains two identical external power supplies - one for each channel. Therefore, all further information regarding power supply is shown for ONE power supply, unless otherwise indicated).

Nominal line voltage: 100-240 Volts, 50/60Hz.

Input voltage range: ±10%

Two power transformers; two vacuum tube rectifiers, three filter chokes; one high speed vacuum tube voltage regulator, two solid-state analog non-switching voltage regulators.

AC voltage intensively filtered by special RFI power line filter.

## Power Supply Energy Storage

Approximately 102 Joules.

#### Front Panel Controls: Preamplifier

OUTPUT LEVEL controls (separate for left and right channels).

SELECTOR switches (separate for left and right channels).

MONITOR switches (separate for left and right channels).

MITING switch

ABSOLUTE PHASE switch

## Rear Panel Connectors & Controls: Preamplifier

Four pairs of INPUT CONNECTORS RCA for line inputs and TAPE (play).

One pair OUTPUT CONNECTOR RCA for TAPE (record).

One pair of OUTPUT CONNECTORS RCA (single-ended outputs).

One pair of gold-plated XLR CONNECTORS (balanced outputs).

One XLR CONNECTOR (6 pins, gold-plated) for connecting the power supply cable.

## Front Panel Controls: Preamplifier Power Supply

POWER switch.

OUTLETS switch.

REMOTE 1 turn-on/off switch for LAMM power amplifiers.

REMOTE 2 turn-on/off switch for LAMM power amplifiers.

Four LED controls.

## Rear Panel Connectors & Controls: Power Supply

IEC 320 POWER INLET (3 lug).

Two AC OUTLETS, switched.

One XLR CONNECTOR (6 pins, gold-plated) for connecting the power supply cable.

Two REMOTE CONTROL plugs.

EARTHING POST (gold plated).

#### Features

Pure class A fully balanced MOS-FET zero feedback design. Power supply utilizes vacuum tube rectifier, choke contained filter and high speed vacuum tube voltage regulator.

High-current drive capability, in combination with unique single-ended class A circuitry, assure the preamplifier's capability to drive any cable and any real world load, while maintaining its practically inaudible sonic signature.

This design is unique to LAMM INDUSTRIES, INC.

#### AC voltage selector:

100/120/220/230/240 Volts, internally switchable.

#### Remote Control:

Special built-in circuit enables the remote turn on/off of LAMM power amplifiers

Available remote link cable coordinates the remote functions of two or more amplifiers.

### Safety:

Unique electronic protection circuit enables muting of the outputs until the preamplifier is stabilized after a turn-on, as well as functioning of the preamplifier in a "muting" mode during operation, and automatic switching to muting in case the AC line drops or is interrunted.

Vacuum tube voltage regulator overload protection: 0.125 Amps slo-blo fuse, internally mounted.

AC voltage fuses: 2 Amps slo-blo for 100/120 Volts. 1 Amp slo-blo for 220/230/240 Volts.

### General

Power Consumption: Typically 95 Watts

Burn-in Time at Factory: Minimum 72 hours.

Recommended Burn-in Time in End-user's System: Minimum 200 hours.

Warm-up time: Minimum 45 minutes.

Unit dimensions: 4.5 inches high  $\times$  19 inches wide  $\times$  13.875 deep + 1.375 inches for front handles.

Crate dimensions: 23" x 19" x 10" (58.42cm x 48.26cm x 25.4cm).

Unit weight preamplifier: 15.42 Lbs (7 Kg).

Unit weight power supply: 19 Lbs (8.63 Kg).

Shipping weight preamplifier: 34.6 Lbs (15.7 Kg).

Shipping weight power supply: 39 Lbs (17.71 Kg).

Tube Complement Power Supply: one12AX7/ECC83, voltage regulator tube; one 6C19P, voltage regulator tube; one 5651A, voltage reference tube; two 12AX3, rectifier tubes.

'All the measurements were taken with a 41-KOhm load connected to the preamplifier's output.

All the measurements were taken with A weighted filter.