

MPA-60 MICROPHONE PRE-AMP



USERS MANUAL

INTRODUCTION

Thank You! For purchasing the MPA-60 Pre-Amp System. You'll find it to be one of the most versatile and useful tools in your studio. The MPA-60 is the results of over 5 years of intensive R&D work involving hundreds of hours of testing and evaluations. Every component selected during the design process with just two criteria: PERFORMANCE and RELIABILITY. No expense was spared to offer the ultimate Pre-Amp to professionals that demand the best.

A minimalist approach was chosen in the design of the MPA-60 with emphasis On the shortest path from the microphone to the output, and maintaining signal integrity. Special "low signal" Relays are used in the signal path for silent and reliable switching. All capacitors in the signal path are high quality *Multi-Cap* or *Solen Fast Caps*. The transformers (*there are six in all*) are built in the UK to our specifications and incorporate *Mu Metal* shielding to reduce external electrostatic and magnetic noise. All voltages are supplied from a reliable, highly regulated supply that's designed for 24/7 operation. The design of our Printed Circuit boards is such that, Point to Point wiring is realized by placement of the components precisely at the point where they connect with other components. This minimizes any signal passing through small traces on the Printed Circuit using the component lead for connection.

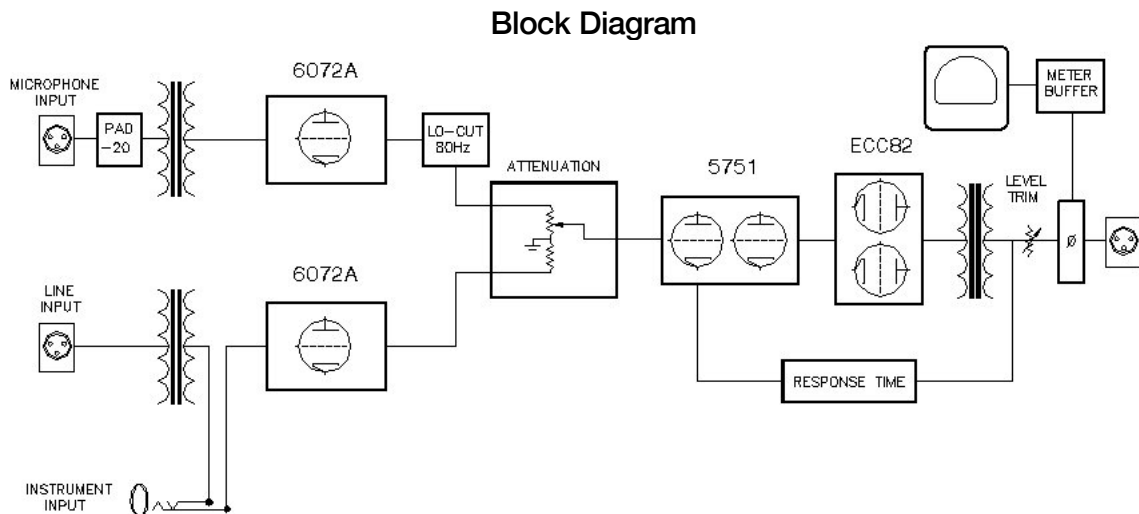


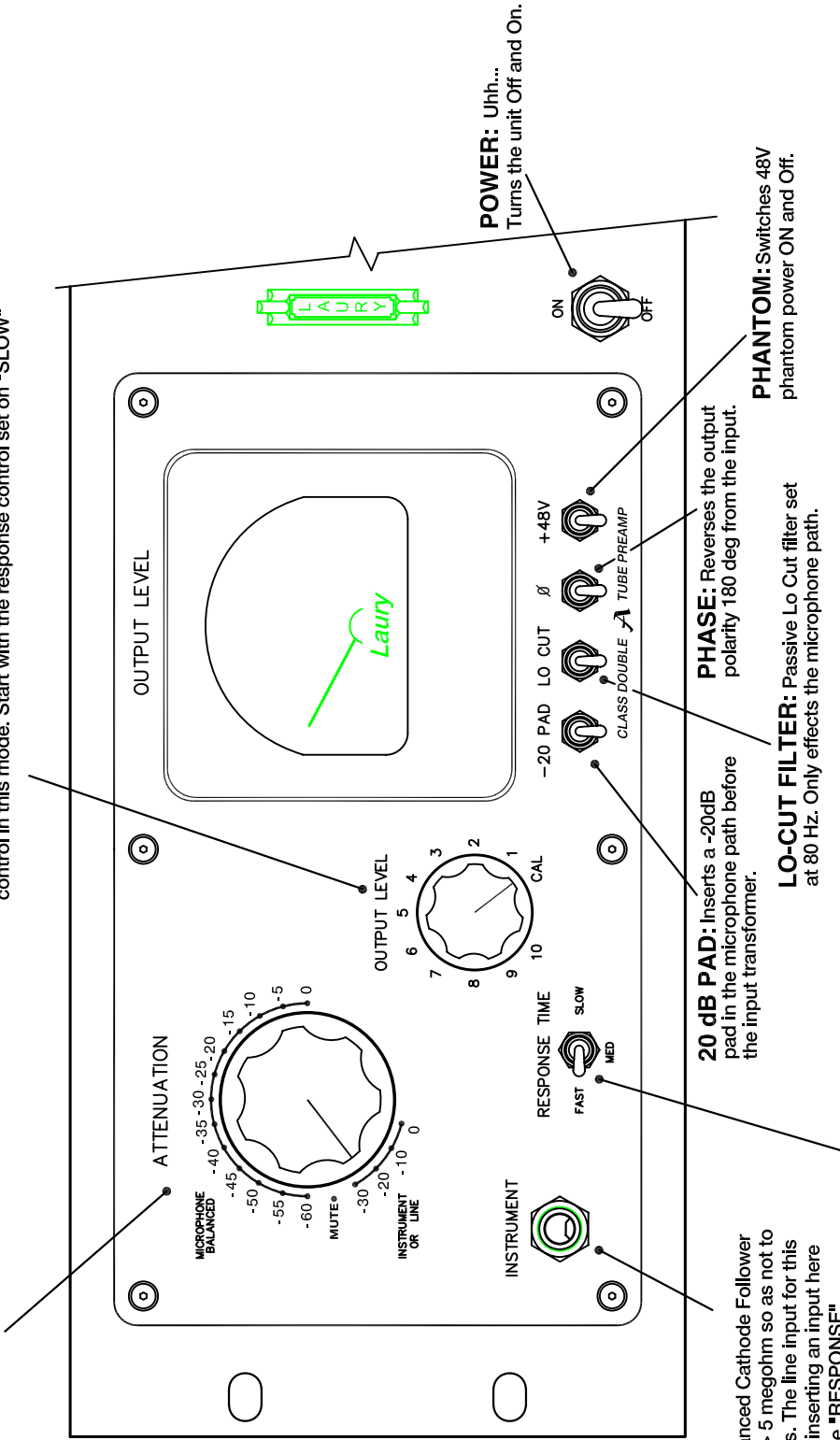
fig 1

Class Double A “The Class Double A” topology has been around since the early fifties. It’s the ultimate output topology if you’ve got the quality transformer and three triode sections required to implement it. Two CLASS A vacuum tube sections (with one inverted) work together to deliver a true + 30dbM into a 600 ohm load.

ATTENUATOR: Adjust the attenuation between first and second stages in 5 dB increments. Operation of this control does not affect the bandwidth of the channel as with other manufacturers units. This control also serves as a selector switch for the Microphone or Line / Instrument inputs. The "MUTE" position can be used to mute the channel while changing microphones or instruments and can be used as a standby. Rotating CCW past the "MUTE" position selects the "LINE IN" input on the rear of the unit, or the "INSTRUMENT" input on the front. The "LINE IN" is transformer coupled, 10K bridging.

OUTPUT LEVEL: This control functions as "TRIM" control of the overall output and has a -10 dB range. IN "CAL" position (preferred), it is out of the circuit. Rotating it CCW turns the output level down. On the MASTERING version, this is a stepped control in 1 dB increments.

HINT: For a rich full sound on Bass or Rhodes, set this control to the 10 o'clock position and use the "ATTENUATOR" control to make up the output loss. It functions like a "MASTER" control in this mode. Start with the response control set on "SLOW"



INSTRUMENT INPUT: A true unbalanced Cathode Follower input. The input impedance is a very high > 5 megohm so as not to load down piezo type instruments pick-ups. The line input for this channel is normalized through this input, so inserting an input here interrupts the "LINE" input on the back. The "RESPONSE" and the "PHASE" switch are still in effect. Maximum input is 2 Vpp.

20 dB PAD: Inserts a -20dB pad in the microphone path before the input transformer.

LO-CUT FILTER: Passive Lo Cut filter set at 80 Hz. Only effects the microphone path.

PHASE: Reverses the output polarity 180 deg from the input.

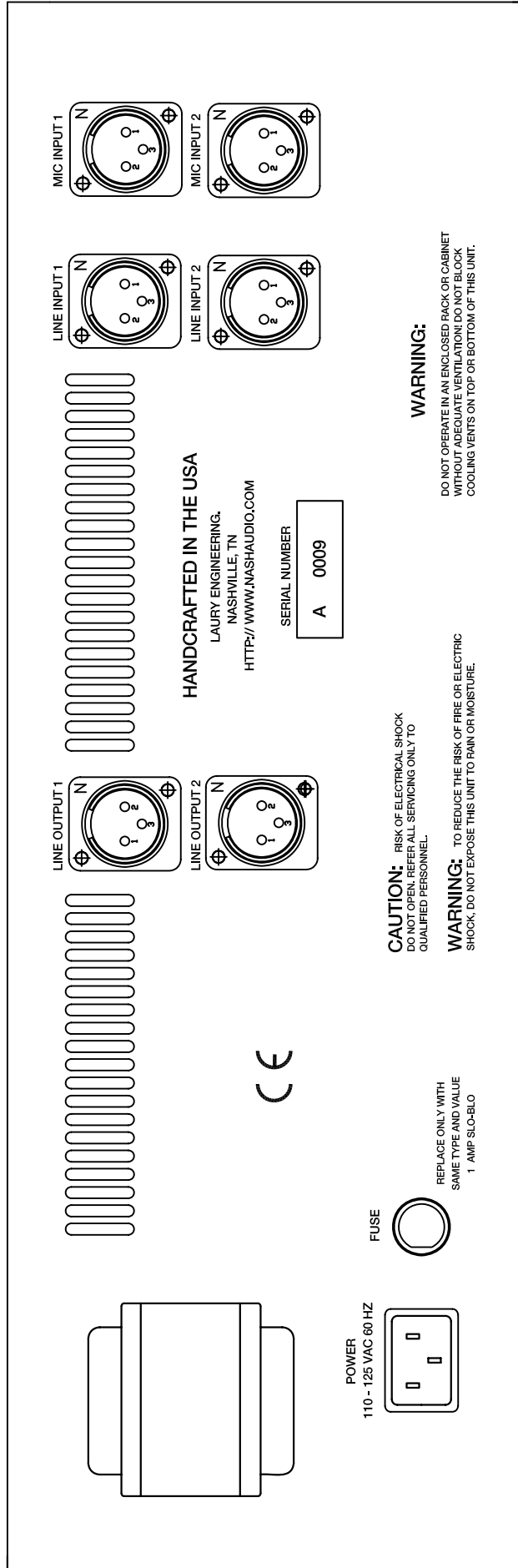
PHANTOM: Switches 48V phantom power ON and Off.

POWER: Uhh... Turns the unit Off and On.

RESPONSE TIME: This switch lets you tailor the transient response of the pre-amp. In the "FAST" position, transients are reproduced as delivered by the microphone. In the "MEDIUM" position the signal gets a little warmer and fatter as the fastest transients are rounded off a bit. In the "SLOW" position, We're into the classic vintage sound with greater harmonic content and bloom. It's best to experiment with this control because it is program dependent.

HINT: When the MPA-60 is inserted across the 2 Mix Buss of a digital workstation, a lot of the missing warmth and depth is recovered bringing your mix to a whole new level of natural sound. Start with the medium setting and experiment.

REAR VIEW



Specifications

Microphone Input:	150 ohms, Transformer balanced.
Input Load Impedance:	1.5K Ohm.
Line Input:	>10 kOhm Transformer Balanced.
Instrument Input:	> 5 Mohm, Unbalanced.
Signal to Noise:	78 dB @ 60 dB Gain. A" weighted 20Hz 20Khz.
Equivalent Noise:	-125 dBm
Microphone Maximum Input Level:	-20 dBm Without Pad. -5 dBm with Pad @ 20 Hz.
Line Input Maximum Level:	+4 dBm Nominal.
Instrument Input Maximum Level:	2 Volts rms Nominal.
Maximum Gain:	65 dB with Response control Set to slow.
Frequency Resp:	+/- .2 dB, 20 cps to 30 kHz. +/- 1 dB, 10 cps to 50 kHz.
THD + Noise	.1% 20Hz to 20 Khz.
IM Distortion:	.015% SMPTE @ -28 dBm.
Power Requirements:	105 to 125 VAC 50/60 Hz 65 Watts.

Warranty

All Laury Engineering products are covered by a limited FIVE year warranty, excluding vacuum tubes. Vacuum tubes are warranted for six months. This warranty is available only to the purchaser that submitted the original warranty registration card. All warranty repair service is provided at Laury Engineering Nashville, TN. Charges for unauthorized service and transportation cost are not reimbursable under this warranty. All warranties expressed or implied become null and void where the product has been damaged by misuse, accident, neglect, modification, tampering or unauthorized alteration by anyone other than Laury Engineering

The warrantor assumes no liability for property damage or any other incidental or consequential damage whatsoever which may result from failure of this product. Any and all warranties of merchantability and fitness implied by law are limited to the duration of the expressed warranty. All warranties apply only to Laury Engineering products purchased and used in the USA.

About Laury Engineering

Laury Engineering is Owned and Operated by Ron Laury in Nashville, TN, specializing in manufacturing High Quality Pro Audio equipment for the recording industry. We offer a range of products including Vacuum Tube Microphone Pre-Amps, Compressors, Equalizers, and Instrument Direct Boxes. We also specialize in restorations and service of new and vintage studio gear.

Most of our product line is built to order. Usually our production runs are 10 to 20 units at a time. Our business philosophy is, "*We build what we sell*" Our growth is based on SALES that is generated by word of mouth advertising along with some commercial advertising. This is a business model that works for us.