## LAMM INDUSTRIES, INC.

## INSTRUCTIONS FOR READJUSTING THE ML1 AMPLIFIER FROM SCRATCH AND AFTER THE REPLACEMENT OF OUTPUT TUBES

## Instructions:

Please do the following to put a clean start to your operation of the amps. Take the digital voltmeter and connect it to the mains; find an instant when the mains value is as close to 120V (or the nominal value in your local area) as possible. Then, adjust the idle current on the ML1 to indicate slightly below 0.3 Amp and adjust the balance. Let the amp work for 12-14 hours without turning it off. Again, measure the mains voltage using an external voltmeter and catch the mains voltage at about 120V (or the nominal value in your local area); do the adjustment of the ML1 again, if necessary. If these steps are done properly, the amp should operate flawlessly. The trimmer potentiometers are necessary mainly for adjustment after the replacement of the output tubes.

In general, the mains voltage fluctuates over time; this causes the needle on the amp's meter to move. However, the mains fluctuations are not critical to the amp as long as the plate current needle stays within the red zone but doesn't exceed the right-most red stripe (slightly over 0.3 A); the idle current could be less and move left out of the red zone. Again, the absolute value of the idle current is not critical to the amp operation; it shouldn't go over the right-most red stripe but can go down and travel to the left outside of the red stripe zone. For example, the mains voltage goes down in the evening, when a lot of people use TVs, computers, etc.; as a result, the meter's needle indicating the value of the idle current can go down to 0.2Amp -- this is fine and does not indicate that the amp is not operating properly. No adjustment is necessary. When the mains goes up again, the idle current needle moves to an appropriate position.

Once you've done the final adjustment, don't touch anything for a while.