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## MA-1 Mk.II.2 amplifier installation and operation instructions

**Installation:** Place the amps in your system. Connect the preamp cable to the appropriate input connector on the front of the amp. If you must use the RCA input connector, make sure the shorting plug is installed between pins 1 & 3 on the XLR connector else a buzz will result. Verify that both power switches are OFF and connect AC power to the AC input connector on the rear of the amp. Connect the negative speaker cable to the negative output terminal and the positive speaker cable to the positive output terminal.

**Setup:** Install the tubes in their sockets. The front group of four sockets (no cooling holes) take the 6SN7GT driver tube. All other sockets take the 6AS7G output tube. A total compliment of four driver and fourteen output tubes are required per each chassis. Engage the main power switch (edge of chassis) and verify that the amber indicator lights. In about 15 seconds, the filaments of all tubes should be visibly glowing orange. Rotate the BIAS control (beside the input connectors) fully counterclockwise. Wait at least one minute, then engage the standby switch (other big toggle switch) and verify that the red indicator lights. The amplifier is now fully powered up.

**Bias adjustment:** Initially, rotate the Bias control (next to the input connector) fully counterclockwise. Depress both the Test/Operate switch (edge of chassis opposite the power switches) and the Bias Test switch (next to the Test/Operate switch) and the meter will rise to indicate the bias reading. Use the Bias control (next to the input connectors) to set the meter as follows: Cold amp = .650A / Hot amp (final setting) = .750A. Release the Bias Test switch as soon as you have made the adjustment. If the amp is biased when cold, you can expect the bias to increase notably as it warms up, thus the difference in settings between cold and hot. Check bias on a new amp daily until it has stabilized, typically after 10-20 hours of use. When bias has stabilized it can be expected to stay in adjustment for extended periods.

**DC Offset adjustment:** Depress the Test/Operate switch (at the edge of the chassis, opposite the status indicators). Examine the reading on the bias meter. If it is NOT zero (above OR below) adjust the DC offset control closest to the bias test switch) to bring the meter to a zero reading. The bias and DC offset controls interact somewhat, so the bias and DC Offset procedures must be repeated.

**Operation:** The amplifier is now completely operational. The amplifier can be left in either standby or operational mode indefinitely. We recommend using the Standby feature if you are not listening to the amp.

**Fuses:** The first fuse by the power cord entry is the Output section B+ and is 5 Amp Slow (2.5A slow for 235V). The middle fuse is the filament fuse and is 5 Amp Slow (2.5A for 235). The last fuse controls the driver circuit and is .5 Amp slow (.25A Slow for 235 Volt). **WARNING!** To avoid fire hazard, always replace fuses with same type and rating.