



**Atma-Sphere Music Systems, Inc.**

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## **Atma-Sphere M-60 Mk.II.2 (late) amplifier quick setup 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 use the RCA input connector, make sure the shorting plug is installed between pins 1 & 3 on the XLR connector else a buzz may 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 central group of four sockets (no cooling holes) take the 6SN7GT driver tube. All other sockets take the 6AS7G output tube. A total complement of four driver and eight output tubes are required per each chassis. Engage the main power switch (left side of chassis) and verify that the amber indicator lights. In about 15 seconds, the filaments of all tubes should be visibly glowing orange. Wait at least one minute, then engage the standby switch (right side of chassis) and verify that the red indicator lights. The amplifier is now fully powered up.

**DC Offset adjustment:** Depress the Operate/Test Switch. Examine the reading on the bias meter. If it is NOT zero (above OR below) use the DC offset control (by the Bias Test switch) to bring the meter to a zero reading. If the meter cannot be zeroed, perform the Bias adjustment procedure and then reexamine the DC offset. The bias and DC offset controls interact somewhat, and if one is very far off, it may be impossible to set the other correctly.

**Bias adjustment:** Depress both the Bias Test Switch and the Operate/Test switch. The meter will slowly rise to indicate the bias reading. Use the Bias Control (by the input connector) to set the meter as follows: Cold amp = .400A / Hot amp (final setting) = .550A. If the amp is biased when cold, the bias may 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 1020 hours of use. When bias has stabilized it can be expected to stay in adjustment for extended periods.

**Note:** It may not be possible to obtain proper DC Offset and Bias readings if there are defective tubes in the amplifier.

**Operation:** The amplifier is now completely operational. The amplifier can be left in either standby or operational mode indefinitely. Note: Some bluish florescence of the output tubes is normal. Some older 6SN7 tubes may be intermittant in the sockets due to smaller pin diameters used on some older tubes.

**Fuses:** The first fuse by the power cord entry is the Output section B+ and is 3 Amp Slow (1.5A slow for 235V). The second fuse is for the output filaments and is 3 Amp Slow (1.5A for 235). The last fuse controls the driver circuit and is 0.5 Amp slow (0.25A Slow for 235 Volt). **WARNING!** To avoid fire hazard, always replace fuses with same type and rating.