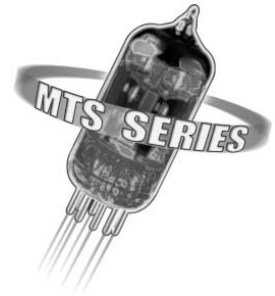

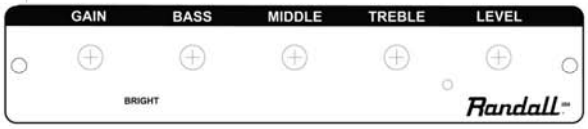

Replacing modules: When exchanging modules, simply turn both thumbscrews to the left until they fill loose.(Do not remove the screw completely). Remove the module pulling out on the thumbscrews. Slide in a new module, and push in on the center knobs until flush with the front panel. Tighten the thumbscrews, by turning to the right until snug.

You should always check the bias readings whenever you replace output tubes and re-adjust if needed. Since we've made it so simple, there is no reason to not do it.

BIAS READINGS:

EL84 -	**15mV to 20mV** - RM20 models
6L6/5881	28mV to 35mV
EL34/6CA7	30mV to 38mV
E34Ls	35mV to 45mV
6550	35mV to 45mV

Meter displays differ from one meter to the next. Some may indicate for example, 30.0 for 30 millivolts. Others may show .030 for 30 millivolts. Knowing how you meter works if of the utmost importance.

Additional features of the "POWER TUBE BIAS SECTION"
Fast Blo fuses. One per output tube. In the event of a power tube failure, the corresponding fuse will open protecting the amp from additional damage. A red LED next to the fuse will indicate that the fuse is blown. If this happened in the past, you would need to take the amp to a repair shop. They would then hold it for ransom while you figured out how to raise enough money to pay them to fix it. No more. The amp will now tell you if you have a shorted output tube and which one it is! With the power off, simply remove the power tubes and replace the indicated fuse with a FAST BLO 250mA (1/4 amp). NEVER EVER use anything but a FAST BLO 250mA (1/4 amp) fuse. If you do have the misfortune of "blowing" an output tube, we strongly suggest replacing the pair. Remember, your amp will only perform as well as your weakest tube.

Special Note:
You should always carry a spare pair of power tubes, fuses, screwdriver and your voltmeter with you. If a tube fails at a gig, you could be back up and running in a matter of minutes. Try that with any other amp.

Advanced theory (for those who care):
Those of you with electronic knowledge may notice we are referring to current draw but are making measurements in millivolts. Ohms law states that I=E/R or current (I) equals voltage (E) divided by resistance (R). Inside the amp are one ohm resistors in the cathodes of the output tubes. The external test points allow access to those resistors. When you measure across those resistors at the rear panel test points, you are reading the DC voltage drop across a one ohm resistor. Referring to ohms law, if R=1 in the formula, then I = E or current equals voltage. So when you read for example, 30mV you are also seeing the equivalent value of current or 30mA.

WARNING: Do not be tempted to run your tubes hotter than the maximum values in the chart. You may find it sounds really cool as you destroy your expensive tubes and possibly damage your amp, of course voiding your warranty! Also, in case you haven't found out the hard way yet, power tubes get extremely hot (as high as 800 degrees)!!!! NEVER touch the tubes while the amp is on. Always allow at least 5 minutes for the tubes to cool before touching them after turning the amp off.