

- 1. Turn off your amp, and allow to cool down. The Bias-Easy 1200™ is primarily for amplifiers using four 8-pin power tubes with a bias adjustment potentiometer available inside or on the chassis underside or back panel of the amp.
- 2. Remove one of the power tubes (6L6, EL34, 5881, 6550, 6V6, KT66, KT77, etc)
- 3. Insert a Bias-Easy<sup>™</sup> probe into the power tube socket, making sure to line up the key on the probe post with the key in the center hole of the socket. Repeat for the second, third and fourth power tubes with each of the remaining probes. If your amp only has two power tubes, we suggest using the A and B probes. The C and D probes may be unplugged from the Bias-Easy<sup>™</sup> in that case.
- 4. Insert each tube you removed into each socket of the Bias-Easy™. Make sure the key on the tube base is properly lined up with the key on the center hole of the socket. All power tube(s) must be in place in their sockets during testing.
- 5. Make certain that a speaker is connected to the amp. If this is an amp head, connect a cable between the speaker jack and the speaker cabinet.
- 6. Make sure all bias probes to be used in the testing are connected to the jacks at the top of the Bias-Easy™. Connect the power supply cord to the jack on the bottom of the Bias-Easy™, and connect the USB connector on the cord to the power supply. Plug in the power supply to a power outlet. The display should read "000"
- 7. Turn on the amp, allow to warm up, and turn the standby switch to "operate". Turn down the volume controls and do not play through the amp during the bias testing.
- 8. The rotary switch on the Bias-Easy<sup>™</sup> points to which probe is being measured (A, B, C or D). You will read the tube cathode current on the digital display in milliamps (mA) of the tube which is plugged into the socket indicated by the rotary switch. If the current exceeds 100mA, be prepared to immediately turn the amp back to standby. You have a problem in the amp, or a defective tube.
- 9 Adjust the bias pot in the amplifier for the proper bias reading. A rule-of-thumb generic setting is about 35mA for 6L6 and EL34, 18mA for 6V6. A much more accurate setting is determined by knowing the plate voltage of the amplifier, and using that information along with the type of tubes (6L6, EL34, etc) on our online Tube Bias Calculator at <a href="https://www.amprepairparts.com/bias.htm">www.amprepairparts.com/bias.htm</a>.
- 10. Rotate the rotary switch to the next position to read the cathode current on the next associated power tube. If the tubes are well-matched, all tubes should read with 3-4 mA of each other. If the tubes have significantly different current readings (greater then 6 mA), your tubes are not matched and should be replaced with a matched set.
- 11. Turn off the amp, allow the tubes to cool, remove the tubes from the Bias-Easy™ socket, remove the sockets from the amp, and reinstall the tubes as normal. Again, be careful to line up the key on the tube base to the key slot in the socket.

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