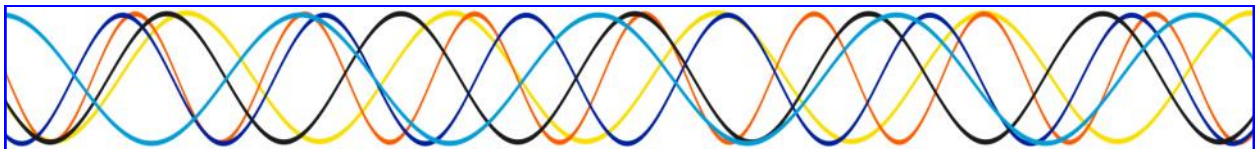


# GB-4000 / M.O.P.A. Specifications



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# Technical Specifications



## GB-4000

## M.O.P.A.

<b>RF OR EM METHOD</b>	RF Method. Used in original machines.	RF Method. Used in original machines.
<b>FREQUENCY RANGE IN HERTZ</b>	20,000,000 MHz. (1 to 20 million Hertz)	20,000,000 MHz. (1 to 20 million Hertz)
<b>MODULATION FREQUENCY RANGE</b>	1 to 400,000 Hertz at 100% AM modulation.	1 to 400,000 Hertz at 100% AM modulation.
<b>RF CARRIER SINE WAVE</b>	Fixed 3.1 MHz. (3,100,000 Hertz)	Variable. 2.2 MHz to about 3.8 MHz.
<b>DIGITALLY PRODUCED ANALOG</b>	All frequencies are converted to analog before they are output from the generator.	M.O.P.A. RF carrier is analog. It outputs whatever the GB-4000 outputs when connected to it.
<b>PLASMA TUBE REFLECTOR</b>	N/A	YES
<b>PLASMA TUBE GAS</b>	N/A	Argon. Lights instantly.
<b>PLASMA TUBE LONGEVITY</b>	N/A	Indefinite lifespan. Plasma tube will never burn out.
<b>PLASMA TUBE RANGE</b>	N/A	WITHOUT REFLECTOR 30 feet (10 meters) 360° degrees. WITH REFLECTOR 40 feet (13 meters) 180° degrees.
<b>SUGGESTED PLASMA TUBE RANGE</b>	N/A	1 inch to 12 feet.



**GB-4000**



**M.O.P.A.**

<b>GREATEST POWER ABSORPTION RANGE</b>	N/A Direct contact.	1 inch to 2 feet.
<b>USEFUL RANGE DEFINITION</b>	N/A Direct contact.	Physiological effects with at least 0.11 watts of energy at 30 feet based on the "Inverse Square Law" calculations.
<b>POWER OUTPUT LEVEL AND SAFETY</b>	Variable, 2 modes. Audio Mode 0.75-watts. (38 VPP) RF Mode 4.7-watts. (115 VPP) The user has complete control over the output intensity.	Variable. The user can adjust the power output from less than 20-watts to 190-watts output.
<b>AUDIO CONTACT METHOD</b>	Electrodes (Metal hand cylinders, footplates)	N/A
<b>RF CONTACT METHOD</b>	Electrodes. (Metal hand cylinders, footplates)	N/A
<b>OUTPUT FRACTIONAL FREQUENCIES</b>	0.01 resolution. A higher resolution is only needed by lower frequency range instruments.	Outputs whatever the GB-4000 outputs when connected to it.
<b>OUTPUT AUDIO FREQUENCIES</b>	YES	Outputs whatever the GB-4000 outputs when connected to it.
<b>OUTPUT SINGLE FREQUENCIES</b>	YES	Outputs whatever the GB-4000 outputs when connected to it.
<b>MULTI-SIGNAL OR RUN MULTIPLE AUDIO FREQUENCIES SIMULTANEOUSLY</b>	The only instrument capable of running 1 to 8 frequencies simultaneously to 40,000 Hertz without frequency degradation. One other company can run 3 frequencies but you have to purchase 2 additional generators at \$1200 each.	Running up to 8 frequencies simultaneously makes it up to 8 times faster to use than any other instrument. Why waste your time running one frequency at a time when you can run up to 8 frequencies at a time. It's like getting 8 frequency generators for the price one.
<b>OUTPUT MULTIPLE RF FREQUENCIES SIMULTANEOUSLY</b>	2 RF frequencies from 40,001 Hertz to 20 MHz. (40,0001 to 20 million Hertz)	2 to frequencies from 40,001 Hertz to 20 MHz. (40,001 to 20 million Hertz)



## GB-4000

## M.O.P.A.

<b>ADDITIONAL POWER TO RUN SIMULTANEOUS FREQUENCIES</b>	With its 4.7-watts output, it is 47 times more powerful than the standard 1/10th (0.10) of 1-watt power level used by our competitors.	Additional 115-watts.
<b>PROGRAMABLE CHANNELS</b>	2,000 of which 888 are preprogrammed. Over 8,000 frequency sets are available.	N/A
<b>RUN PROGRAMED CHANNELS CONSECUTIVELY</b>	2 to 10 can be daisy chained to run one after another for over night use.	Outputs whatever the GB-4000 outputs when connected to it.
<b>DISPLAYS ACTUAL FREQUENCIES</b>	YES	Built in frequency counter.
<b>FREE SOFTWARE TO CREATE AND UPLOAD CUSTOM PROGRAMS</b>	YES	N/A
<b>WAVEFORMS</b>	Sine, Square, Pulsed Square Width and Hoyland.	Outputs whatever the GB-4000 outputs when connected to it.
<b>OTHER WAVEFORMS</b>	Additional waveforms such as Triangle, Trapezoid, Ramp Up and others are unproven waveforms never used in the original instruments. Therefore we do not use them.	Outputs whatever the GB-4000 outputs when connected to it.
<b>SQUARE WAVE DUTY CYCLE</b>	Variable from 10% to 100%.	Outputs whatever the GB-4000 outputs when connected to it.
<b>GATING OR PULSING</b>	1 to 5000 Hertz covering the full 20 million Hertz frequency range of the GB-4000.	Outputs whatever the GB-4000 outputs when connected to it.
<b>GATING OR PULSING DUTY CYCLE</b>	Variable from 10% to 90%.	Outputs whatever the GB-4000 outputs when connected to it.



## GB-4000



## M.O.P.A.

<b>FREQUENCY SWEEPS WITH USER DEFINED RANGES</b>	1 to 20 MHz. (1 to 20 million Hertz)	Outputs whatever the GB-4000 outputs when connected to it.
<b>CONVERGE SWEEPS WITH USER DEFINED RANGES</b>	2 frequency sweeps with the start frequency sweeping to the end frequency and the end frequency sweeping to the start frequency. (Range 1 to 20 million Hertz)	Outputs whatever the GB-4000 outputs when connected to it.
<b>CHANNEL SWEEPS</b>	2 to 20,000 Hertz. Works within channels or single frequencies.	Outputs whatever the GB-4000 outputs when connected to it.
<b>HARMONIC SIDEBAND FREQUENCIES 20 TO OVER 100 SIMULTANEOUSLY</b>	YES	The M.O.P.A. RF section is a replica of the 1936/1950 original instrument. It had this capability.
<b>SIDEBAND SWEEPS 20 TO OVER 100 SIMULTANEOUSLY.</b>	Only at the Fixed RF 3.1 MHz carrier. Sideband range from about 2.6 to about 3.6 MHz.	Variable carrier wave makes larger sideband sweeps possible from about 1.7 MHz to 4.3 MHz. No other plasma tube instrument has this capability.
<b>PRODUCES HARMONICS</b>	Square wave, Sideband and mixed high frequency harmonics.	Produces its own plus runs whatever the GB-4000 does if connected to it.
<b>OUTPUT ALL RIFES FREQUENCIES DIRECTLY</b>	We produce them directly instead of through harmonics like limited frequency range instruments do.	The GB-4000 & M.O.P.A. can output ALL of them directly or through harmonics whichever you choose.
<b>OUTPUT 1950s AUDIO FREQUENCIES</b>	1 Hertz to 2200 Hertz.	Outputs whatever the GB-4000 outputs when connected to it.
<b>OUTPUT 1930s AUDIO FREQUENCIES</b>	1 Hertz to 42,500 Hertz.	Outputs whatever the GB-4000 outputs when connected to it.
<b>OUTPUT 1930s RF FREQUENCIES</b>	139,200 Hertz to 1,607,450 Hertz.	Outputs whatever the GB-4000 outputs when connected to it.





**GB-4000**



**M.O.P.A.**

<b>OUTPUT RIFE / HOYLAND 1936/1939 FREQUENCIES</b>	About 2.7 MHz to 3.4 MHz range. These are higher octave frequencies of the 139,200 to 1,607,450 range.	Outputs whatever the GB-4000 outputs when connected to it.
<b>OUTPUT 1920s FREQUENCIES</b>	4 MHz to 20 MHz. (4 million to 20 million Hertz)	Outputs whatever the GB-4000 outputs when connected to it.
<b>MORTAL OSCILLATORY RATE (MOR)</b>	<p>With the GB-4000 and M.O.P.A., these frequencies can be produced in five different ways.</p> <ol style="list-style-type: none"> <li>1. Directly which is the best method.</li> <li>2. Mixing two frequencies to produce harmonics.</li> <li>3. Through harmonic sidebands like the original 1936/1939 machine did.</li> <li>4. The M.O.P.A. variable RF carrier frequency can also be put on a higher octave frequency (<math>1,607,450 \times 2 = 3,214,900</math> Hertz) of the frequencies in the 139,200 Hertz to 1,607,450 Hertz frequency range. By using the RF carrier frequency as the MOR the carrier frequency then becomes the MOR. No other instrument has this capability.</li> <li>5. Through square wave harmonics using low audio frequencies. Square wave harmonics from low audio frequencies work very well for many different things. But when a low audio frequency under 30,000 Hertz is used the harmonics will not reach the higher frequency ranges as claimed by many instrument builders. This method is promoted to work just as well as the other 4 methods because it is the easiest circuit to build. But it is also the least efficient method to use to try and produce the original high RF frequencies.</li> </ol>	
<b>FACTORY TESTED AND CALIBRATED</b>	YES	Tested to make sure the input frequency is the same frequency output from the plasma tube.
<b>MANUFACTURED</b>	Built in the U.S.A. by AAA Production Inc., to our high-quality standards.	Same as GB-4000.
<b>PROVEN DESIGN</b>	Solid-state electronics.	Solid state and Vacuum tube design combined. The vacuum tube design has been used for over 80 years now and makes the variable RF carrier possible.
<b>SIZE AND WEIGHT</b>	8" W X 9.5" L X 4" H. 2 pounds.	10.5" X 17" L X 10" H. 19 pounds.

<b>POWER USAGE</b>	<p>The GB-4000 power usage is approximately 25 watts and uses two 9 volts 1.6 amp. switching (110/220 volts AC) power supplies.</p> <p>The SR-4 1 to 15-watt amplifier power usage is approximately 40 watts and uses one 24 volts 2.5 amp switching (110/220 volts AC) power supply.</p> <p>The M.O.P.A. power usage is approximately 450 watts and can be built for either 110 or 220 volts AC.</p>
<b>YEARS IN BUSINESS</b>	<p>AAA Production Inc. has been in business for over 24 years. The GB-4000, SR-4 15-watt amplifier and M.O.P.A. plasma tube amplifier are the results of our 24 years of extensive work in this field.</p>
<b>LIFETIME LIVE SUPPORT</b>	<p>Our instruments come with unlimited lifetime support for both new and used machine owners. Most companies only offer unlimited lifetime support for original owners of their equipment, but we believe in helping everyone. We are only an email or phone call away.</p>
<b>WARRANTY</b>	<p>We have a standard 2-year parts and labor warranty. The customer pays for shipping to the manufacturer. The manufacturer pays for FedEx return shipping within the 50 States. For those that are outside of the U.S.A, we credit the cost of FedEx shipping to the shipping cost outside of the U.S.A.</p>
<b>HALF PRICE REPLACEMENT WARRANTY</b>	<p>At any time after the 2-year warranty has expired, if an instrument circuit board cannot be repaired by our company, we will replace the circuit board for half the price of a new instrument. This includes all previous models. No other company has the confidence to offer this type of warranty. We stand behind our products and believe in taking care of our customers for life.</p>
<b>60 DAY MONEY BACK GUARANTEE RETURN POLICY</b>	<p>We offer a 60-day money-back guarantee less a 10% restocking fee to cover shipping, handling, and repackaging. Returned equipment must be in original new condition and sent back in the original boxes.</p>
<b>AVAILABILITY</b>	<p>By email or phone, Monday through Friday. Also after hours by appointment for those who need it. See email address and phone number on cover page.</p>
<b>PLASMA TUBE MANUFACTURER</b>	<p>We use a separate company to make our plasma tube. But we designed and built our plasma tube to specifically match the circuit output of the M.O.P.A. for maximum power output. Our plasma tube is not built into the M.O.P.A. chassis like some companies, but it has 5 foot leads so that the user can have it as close as they want to use it. We ignite it using the "Induction" method. One of our competitors incorrectly claims this method lacks "<i>RF integration and deep penetration.</i>" They incorrectly believe it takes a great deal of power to ignite the plasma gas through the glass tube. Apparently, they have never tested this method, but we did before we made the decision to use it. Since the M.O.P.A. has a variable power output it can be turned all the way down until the plasma tube goes off. The plasma tube will stay lit with only 2 to 3 milliamps of power as shown on the built-in milliamp meter. This proves it takes no more than about 1½ watts of energy to go through the Pyrex glass to ignite the gas. Therefore there is virtually no power loss igniting the plasma tube using the "Induction" method. Any owner of the GB-4000 and M.O.P.A. can do this test and verify this fact.</p>