

THE MOST VERSATILE FREQUENCY GENERATOR

THE GB-4000

Digital/Analog Sweep Function Generator with 1/100th Hertz Resolution

“Runs 8 frequencies at once. That's just one of the “GB-4000” differences!”

The “GB-4000” is one of the most versatile 20 Megahertz sweep function generators ever built.

It incorporates the very best of function generator technology with the most advanced electronics for a truly superior design, yet it is so easy to use that anyone can operate it.

The “GB-4000” has 2,000 programmable channels and it only takes three easy steps to run any of the programmed channels. Step 1: Press the auto channel button using the keypad. Step 2: Enter the auto channel number. Step 3: Press the run button. Then sit back and let the “GB-4000” automatically run all the frequencies which are programmed into that auto channel.

Most generators can only run one frequency at a time but the “GB-4000” can run up to 8 frequencies simultaneously to 40,000 Hertz. This means it is up to 8 time faster to use.

Nobody wants to spend 40 minutes running 8 frequencies when you can spend only 5 minutes using the GB-4000. Your time is important to you.

The “GB-4000” can also run 2 frequencies simultaneously to 20MHz or 20 million Hertz.

The “GB-4000” has both sine and square wave capabilities.

The “GB-4000” has a 1 to 2200 Hertz gating or pulsing feature.

The “GB-4000” also has the ability to sweep up or down through hundreds or even mil-



lions of frequencies over a pre-selected period of time. The advantage to this is you can run through many frequencies one right after another.

Other frequency generators only have two connectors but the “GB-4000” has four, doubling its capability.

Each generator is a small unit weighing only two pounds and can be held in your hand.

The “GB-4000”s frequencies are crystal controlled, and guaranteed not to drift. Just

enter a frequency and that is the exact frequency you get.

The “GB-4000” can easily be custom programmed using the keypad. For those who like computers it comes with software that allows you to custom program it from your computer also.

If you're one of the many people wanting to own a function generator with the capabilities of the “GB-4000” then this is the frequency generator you should choose.

"GB-4000" FEATURES

20,000,000 CRYSTAL CONTROLLED FREQUENCIES FOR PERFECT ACCURACY

30-DAY NO RISK MONEY-BACK GUARANTEE ONE-YEAR WARRANTY ON PARTS AND LABOR

HAS A 3.1 MHz RF CARRIER FREQUENCY WHICH CREATES MANY SIDEBAND FREQUENCIES

LCD DISPLAYS FREQUENCY YOU ARE USING

LCD DISPLAYS AMOUNT OF TIME SELECTED WHEN CHANNEL IS RUNNING

"SQUARE/SINE BUTTON" ALLOWS YOU TO CHANGE FROM SQUARE TO SINE WAVE MODE

SMALL LIGHT WEIGHT DESIGN ONLY 2 POUNDS

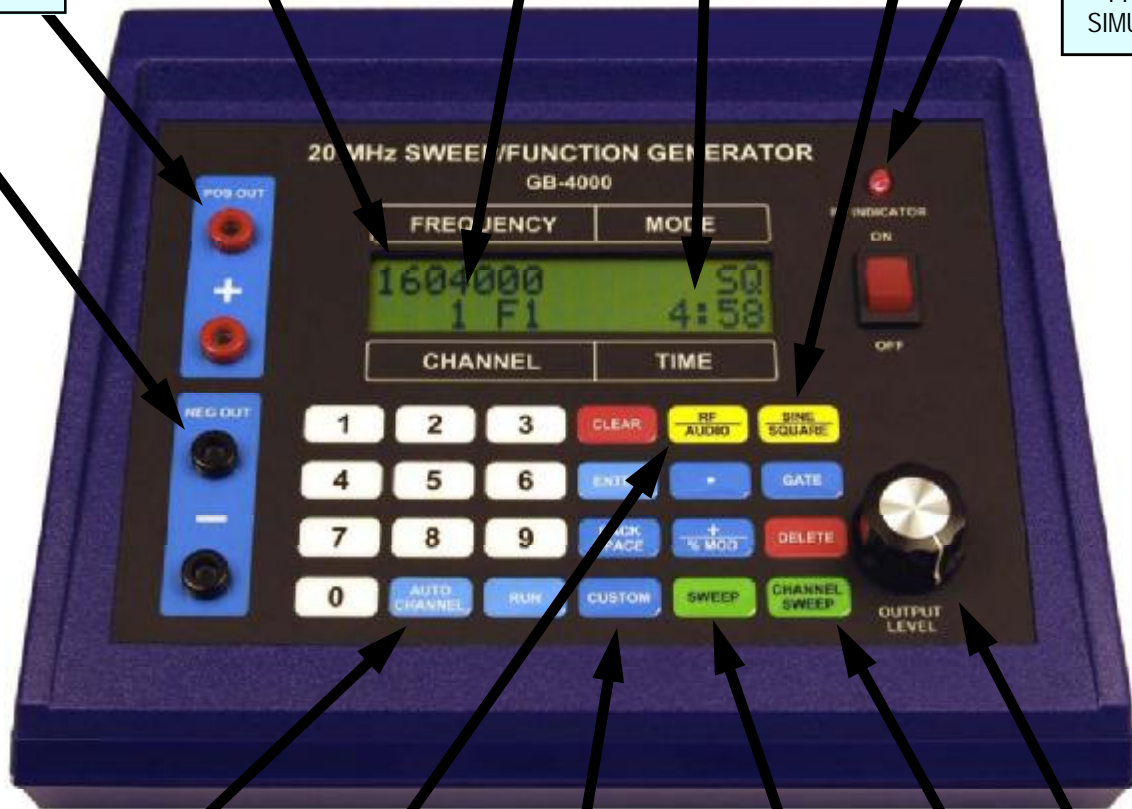
"#4 BUTTON" MUTES THE BEEPER

"RF INDICATOR LIGHT" LIGHTS WHEN RUNNING IN RF MODE

HAS FOUR CONNECTIONS DOUBLING ITS CAPABILITY

LCD DISPLAYS THE AUTO CHANNEL YOU ARE USING

RUNS UP TO 8 FREQUENCIES SIMULTANEOUSLY



"AUTO CHANNEL BUTTON" ALLOWS YOU TO RUN ANY OF THE 2000 CUSTOM PROGRAMMED AUTO CHANNELS

"RF/AUDIO BUTTON" ALLOWS YOU TO CHANGE FROM RF TO AUDIO MODE

"SWEEP BUTTON" ALLOWS YOU TO SWEEP THROUGH 1 TO 20,000,000 FREQUENCIES

"OUTPUT KNOB" MAKES IT EASY TO CONTROL THE POWER LEVEL

"#5 BUTTON" ALLOWS YOU TO PAUSE A PROGRAM

"CUSTOM BUTTON" ALLOWS YOU TO CREATE UP TO 2000 CUSTOM PROGRAMMABLE CHANNELS

"#6 BUTTON" ALLOWS YOU TO SKIP A FREQUENCY OR GROUP OF FREQUENCIES

"CHANNEL SWEEP" ALLOWS UP TO A 10,000 Hertz FREQUENCY SWEEP IN AUTO CHANNELS

20 Million Frequencies

30 MHz 1-10 Watt Linear Amplifier

SR-4 Amplifier

10 Watts - 4 hookups - Built to work exclusively with the "GB-4000"



Though the "GB-4000" works great alone, many people have asked if it was possible to increase the power output of the "GB-4000".

With this in mind we developed the "SR-4" amplifier with a 1 to 10 watt power range.

Function generators can not put out 10 watts but a separate amplifier can. To get the power output of the "SR-4" amplifier all you have to do is plug the "GB-4000" into it.

The amplifier then amplifies the "GB-4000's" frequencies from 1 to 10 watts.

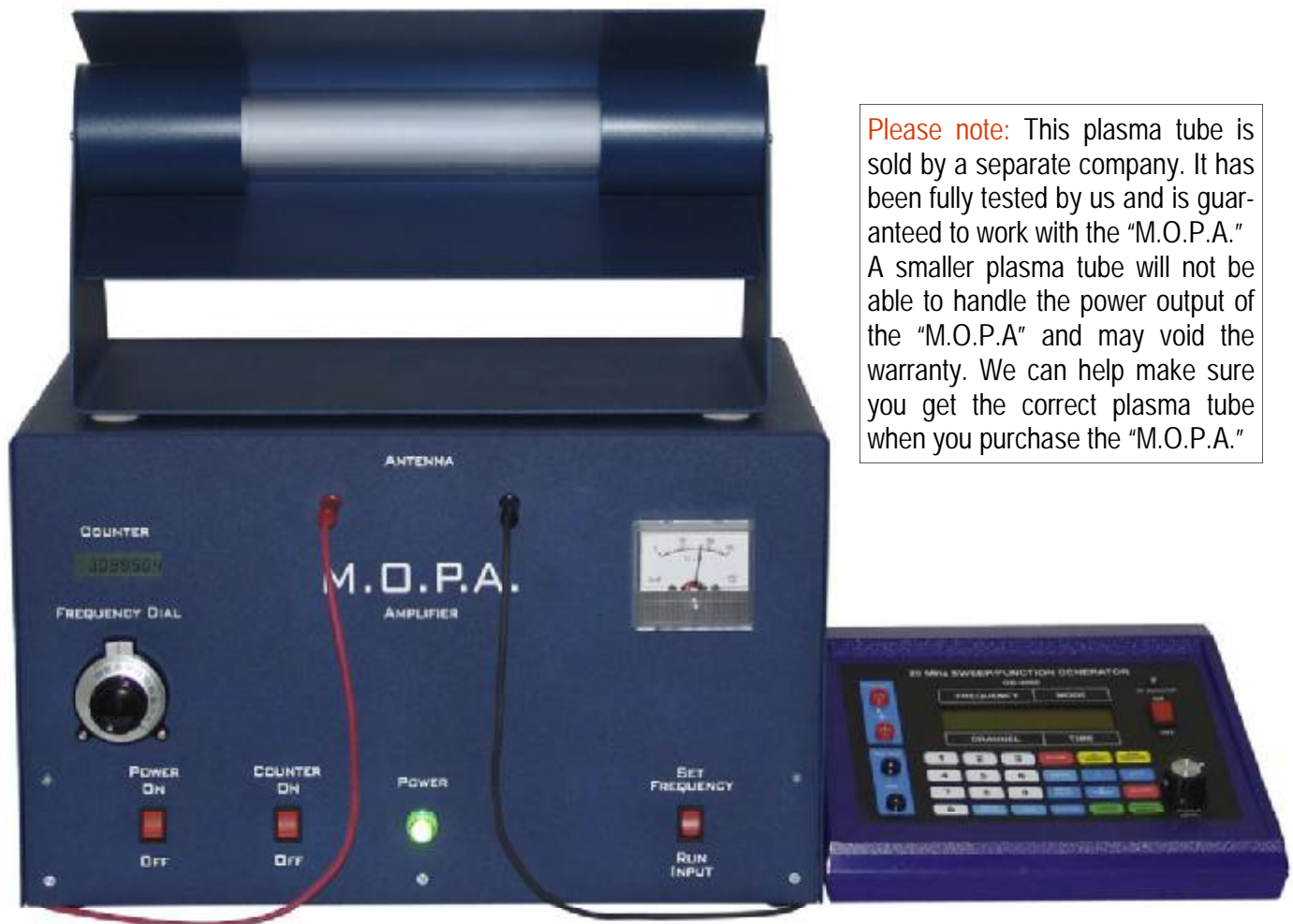
One of the great features of the "SR-4" is more hookups. The "SR-4" now has four sets of hookups for multiple use. All the positive out hookups are connected together and all the negative out hookups

are connect together so it does not matter which you use.

If you are considering purchasing the "GB-4000" and wish to have the advantages of the model "SR-4" 10 watt amplifier then all you have to do is order it when you purchase the "GB-4000".

M.O.P.A. Amplifier

**For those who want more Power! "M.O.P.A."
120 Watts - Works exclusively with the "GB-4000"**



The new "M.O.P.A." (Master oscillator power amplifier) 120 watt amplifier is the newest frequency generator/amplifier we produce. It is an updated replica of the old vacuum tube equipment that was build during the 1930s/1950s era.

Though it has been updated with modern electronics it still uses the old style RF tank coil and 812a vacuum tube to produce the original sine wave waveform output

from that old 1930s/1950s style of equipment.

It has a variable frequency range from about 2.1 MHz to 3.6 MHz and can be connected to the "GB-4000" through a BNC connector. When connected to the "GB-4000" audio frequencies can be amplified by the "M.O.P.A." amplifier and output through an metal antenna or a gas filled plasma tube.

The "M.O.P.A.s" RF output frequency then becomes the carrier frequency for the audio frequencies output from the "GB-4000".

The "M.O.P.A.s" RF output frequency can also be set to a specific frequency within its frequency range and then gated or pulsed with an audio frequency output from the "GB-4000". To see the "M.O.P.A.s" specifications please read the next page.

M.O.P.A. Specifications

1. Fabrication: Built by hand and tested for quality assurance with one year *limited warranty.
2. Proven design: Solid state combined with vacuum tube technology used for over 80 years.
3. Amplification method: Original vacuum tube amplification.
4. Amplification voltage: High voltage (1128 volts).
5. Amplification current : Low current (30 to 200 milliamps).
6. Vacuum tube vs Solid state amplification: Modern solid state uses low voltage and high current designs. The M.O.P.A. uses the high voltage low current design.
7. Milliamp meter: Built in.
8. Waveform: Harmonic sine wave producing harmonic sidebands in the same manner as the original equipment.
9. Sine wave: Analog.
10. Frequency Counter: Built in for accurate reading of the carrier frequency.
11. Carrier frequency: Variable.
12. Carrier frequency range: Approximately 2.1 MHz to about 3.6 MHz.
13. Carrier frequency tuning: Variable tuning capacitor.
14. Power output: Variable average un-modulated power of 120 watts at 180 milliamps (200 Milliamps Maximum).
15. Peak power: When gated or modulated, approximately 480 watts on the high potential voltage rise on the leading edge of the square wave waveform.
16. Frequency input method: Designed to work exclusively with the GB-4000 frequency generator through a BNC cable connection.
17. Frequency output modulation: GB-4000 audio frequencies up to 40,000 Hertz square wave @ 100% AM modulation.
18. Maximum frequencies output: When connected to the GB4000 it can transmit up to 8 frequencies simultaneously.
19. Gating or pulsing: 1 to 40,000 Hertz using the GB-4000.
20. Frequency delivery: Gas filled tube (Sold by approved separate company. *Limited warranty applies only if another type of plasma tube is used then there is no warranty).
21. Tube ignition: Instantaneous.
22. SWR meter: None. Gas filled tube is connected directly to the RF tank coil requiring no SWR (Standing Wave Ratio) meter. This method, unlike the SWR meter systems, delivers almost 100% power output to and through the gas tube.
23. Useful range: 30 feet when using gas tube.
24. Suggested range: 1 inch to 6 feet when using gas tube. Because there is no 1 foot to 3 foot null zone (non-effective range) it is not necessary to stay 3 to 6 feet away from the gas tube.
25. Size: Compact design - 10.5" Wide X 17" Long X 10" High.
26. Power used: Can be built for use with 110/120 volts AC or 220/240 volts AC.
27. Power usage: 175 watts. When connected to the GB-4000 200 watts.
28. Weight: 19 pounds.