

THE MOST VERSATILE FREQUENCY GENERATOR

THE GB-4000

5.4 Watts 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 (20 million Hertz) 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 with its multi-function keypad.

The “GB-4000”'s frequencies are crystal and processor controlled. This means they are guaranteed not to drift. Just enter a frequency and that is the exact frequency you will get.

The “GB-4000” has 2,000 programmable channels which have the ability to hold up to 48 frequencies each. These channels can be programmed in single mode or multiple mode. When these frequencies are programmed into the “GB-4000” it only takes three easy steps to run any of the 2,000 channels.

Step 1: Press the auto channel button using the keypad.
Step 2: Using the keypad enter the auto-channel number.
Step 3: Using the keypad press the run button. Then sit back and let the “GB-4000” automatically run all the frequencies which are pro-

grammed into the auto channel you want to use.

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

The “GB-4000” also has an optional channel sweep feature with a 2 to 20,000 Hertz sweep capability for any channel or frequency that may be run.

The “GB-4000” also has the ability to sweep up or down through hundreds or even millions of frequencies over a pre-selected period of time. The advantage to this is you can run through many frequencies one right after another.

Most generators only have one circuit for the output of frequencies. But the GB-4000 has two independent circuits with variable frequency ranges for each circuit.

One circuit has a 0.75 watt RMS power output. This circuit is used for audio frequencies, including RF frequencies up to 400,000 Hertz used without an RF carrier frequency.

The other circuit is for audio frequencies used with an RF carrier frequency including higher RF frequencies up to 20



million Hertz. It has a power output of 2.7 watts RMS (RMS = true power) or 5.4 watts peak power output.

This means it not only has the power to run one frequency at a time but the “GB-4000” is the only frequency generator which can run up to 8 frequencies simultaneously up to 40,000 Hertz with sufficient power behind each frequency. This means it is up to 8 times faster to use than any other generator.

No one wants to spend 40 minutes running 8 frequencies when you can spend only 5 minutes running 8 frequencies using the GB-4000. Your time is important to you.

The “GB-4000” also has the ability run 2 frequencies simultaneously up to 20MHz or 20 million Hertz.

The “GB-4000” has both

sine and square wave capabilities. Square wave has a 10 to 100% duty cycle capability.

The “GB-4000” has a 1 to 5000 Hertz gating or pulsing feature with a 10 to 90% duty cycle capability.

The GB-4000 also has both an “Audio Mode” and an “RF Mode” for greater flexibility in running frequencies.

Many 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.

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
TWO-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

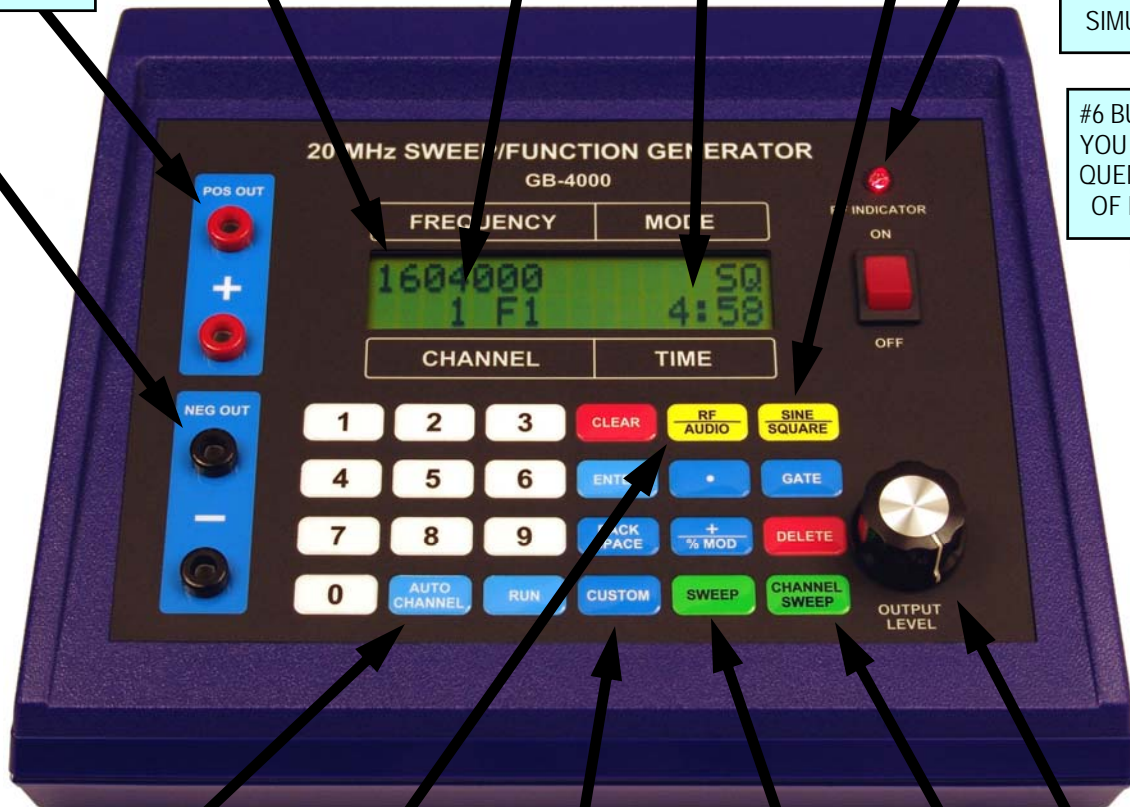
"RF INDICATOR LIGHT" LIGHTS WHEN RUNNING IN RF MODE

HAS FOUR CONNECTIONS DOUBLING ITS CAPABILITY

LCD DISPLAYS THE AUTO CHANNEL YOU ARE USING

RUNS UP TO 8 FREQUENCIES SIMULTANEOUSLY

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



"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 20,000 HERTZ FREQUENCY SWEEP IN AUTO-CHANNELS

20 Million Frequencies

30 MHz 1-15 Watt Linear Amplifier

SR-4 Amplifier

*Now increased to 30 Watts peak power output.
4 hookups - Built to work exclusively with the "GB-4000"*



All 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 15 watt RMS (RMS=true power) power output and a 30 watt peak power output.

Function generators cannot put out 30 watts peak power 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 30 watts peak power.

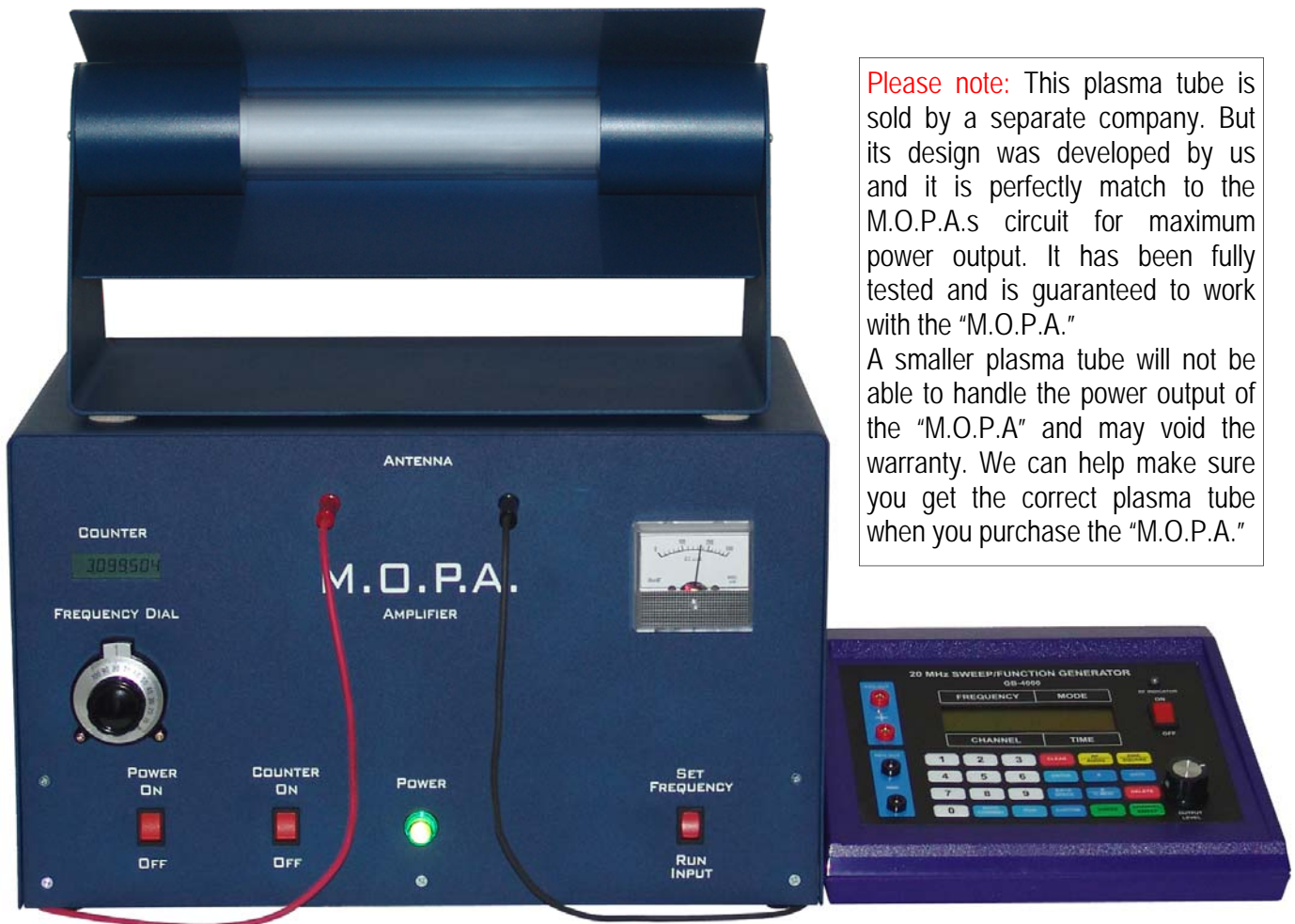
One of the great features of the "SR-4" is more hookups. The "SR-4" now has four sets of hookups for multiple use. All the positive out hookups are connected together and all the negative out hookups

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

If you are considering purchasing the "GB-4000" and want to have the advantages of the model "SR-4" 15 watt RMS power and 30 watt peak power output 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."
207 Watts - Works exclusively with the "GB-4000"**



Please note: This plasma tube is sold by a separate company. But its design was developed by us and it is perfectly match to the M.O.P.A.s circuit for maximum power output. It has been fully tested and is guaranteed to work with the "M.O.P.A."

A smaller plasma tube will not be able to handle the power output of the "M.O.P.A" and may void the warranty. We can help make sure you get the correct plasma tube when you purchase the "M.O.P.A."

The "M.O.P.A." (Master Oscillator Power Amplifier) 103 watt RMS (RMS = true power) 207 watt peak power RF amplifier is an updated replica of the original old vacuum tube equipment that was built during the 1930's/1950's era.

Though it has been updated with modern electronics it still faithfully uses the RF tank coil and 812a vacuum tube needed to produce the original sine wave and square wave waveform output produced by the

original 1930's and 1950's style of equipment.

It has a variable carrier frequency range from 2.2 to 3.8MHz and when producing harmonic sidebands its frequency range goes from 1.7 to 4.3MHz. It is connected to the "GB-4000" through a BNC connector.

When connected to the "GB-4000" all of its frequencies, 1 to 20,000,000 million Hertz (20MHz), can be amplified by the "M.O.P.A." and output through the plasma ray tube.

The "M.O.P.A.s" RF carrier output frequency then becomes the carrier frequency or mixing frequency for all 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. That frequency can then be gated or pulsed with a duty cycle from a 10% to a 90% output from the "GB-4000." See specifications on 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 (1130 volts).
5. Amplification current : Low current (30 to 280 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: Sine wave.
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 2.2 MHz to about 3.8 MHz.
13. Carrier frequency tuning: Variable tuning capacitor.
14. Power output: Variable average un-modulated power of 103 watts RMS at 280 milliamps (280 Milliamps Maximum).
15. Peak power: When gated or modulated, approximately 207 watts peak power using a 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 and RF frequencies up 400,000 Hertz @ 100% AM modulation.
18. Mixing frequency range: When connected to the GB4000 1 to 20,000,000 million Hertz.
19. Gating or pulsing: 1 to 5000 Hertz using the GB-4000.
20. Frequency delivery: Gas filled tube tested, match and balance to the MOPA circuit and is sold by an 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 2 feet when using gas tube. With NO 1 to 3 feet null zone (non-effective range) and 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 approximately 240 watts. When connected to the GB-4000 approximately 265 watts.
28. Weight: 19 pounds. Comes with a 1 year warranty. The 812a vacuum tube has a 90 day warranty.

Our "GB-4000" money-back guarantee makes your decision easy!



Try the "GB-4000" or "GB-4000" with "SR-4" linear amplifier for 30-days. You have 30 days to decide to keep them or return them for a full refund, less shipping and handling. Returned generator must be in original condition. The "GB-4000", SR-4 amplifier have a two year warranty. The *M.O.P.A. has a full one-year *limited warranty on parts and labor.

GB-4000 generator list price is \$1725.00. The SR-4 linear amplifier list price is \$595.00 if purchased together. The M.O.P.A. oscillator/amplifier is \$2495.00. The M.O.P.A. requires a signed purchase agreement. To purchase the GB-4000, SR-4 amplifier or M.O.P.A. generator/amplifier please call your distributor. Some distributors may accept major credit cards, but all will accept money orders or cashier checks. For personal checks allow up to two weeks to clear. Please add sales tax where applicable. Your ordered function generator and SR-4 amplifier will be shipped in 1 to 2 days after the order is received at our office. The M.O.P.A. generator/amplifier may take 48 hours before being shipped. Allow up to 3 days for delivery. Shipping is FREE within the 50 states. We ship priority mail or FedEx.



Order Your
"GB-4000"
Today

For the quickest ordering
call your distributor



The Only Function Generator Capable Of Running
8 Frequencies Simultaneously

www.gbgenerators.com