PULSED TECHNOLOGIES

2009

Intro & Product Comparison

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Pulsed Technologies

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INTRODUCTION

IMPORTANT – PLEASE READ !

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As manufacturers and researchers, both Mr. Dorneanu and I are contacted daily with requests for information on how to use our equipment, and technical details concerning the technology. As we have a lot of experience with a wide range of modalities, we have been pleased to share information we have gained over the last decade. A large proportion of requests come from those investigating and researching Rife and energetic type modalities who do not necessarily have electronic, laboratory, or highly technical backgrounds. It is for their perspective this introduction, comments and comparison has been prepared.

As part of our ongoing research so that we can continue to build and provide technically superior units, Mr. Dorneanu and I have opened up and tested a large number of devices from other manufacturers. It is not—nor has it ever been our goal—to discredit other manufacturers or devices. Rather, we strive to understand the technical and feature limitations of other devices in order to build a more effective device. Researching other equipment has also greatly helped us to develop better and more effective user interfaces.

As a result of our personal investigations (which have become public knowledge), an excessively large number of calls to our sales and support lines have been from frustrated clients of other equipment manufacturers who have been unable to understand or work with the limitations of their equipment. In many cases, invalid assurances and outright incorrect information were given to these clients. We typically find their confusion and desperation understandable, and in most cases, justified.

The confusing, contradictory, and/or incorrect information that is sometimes provided by the manufacturer or dealer compounds the obstacles the end user must face. Unfortunately, many laws (especially in the United States) severely limit the user's easy access to much-needed information, because these laws prevent the manufacturer from dispensing the information. These laws also prevent most licensed health practitioners in the US from sharing information about this technology, even if the practitioners know about it. (Laws are less suppressive outside the US, allowing both practitioners and clients to benefit.) As a result, responsible users have been obliged to do their own research, and find the information wherever they can.

Neither Paul Dorneanu nor I possess—or desire to have—medical credentials, although almost all of our close working affiliates have extensive formal credentials as medical doctors, other licensed practitioners, or scientific and other types of researchers. (Scientific work performed by these affiliates must usually remain confidential while the work is being completed.) While we cannot legally discuss the medical applications of our equipment, we *can* discuss the technical capabilities of our equipment, and why we believe that our units are superior to those of our competitors. It is our hope that the following information will be easily understood even by people without a background in engineering or electronics, and even by those whose illnesses (such as *Candida* and Lyme) create "brain fog." A properly functioning frequency device is important. Knowledge of what makes it function, and why a particular device is better than others, is invaluable.

Jimmie Holman
Pulsed Technologies

PRODUCT COMPARISON

We are often asked to compare our products to other Rife-type devices, from a technical or functional standpoint. While this may seem on the surface to be a legitimate request, it often puts us in the rather awkward position of seeming critical of otherwise useful equipment. Usually, the person requesting the comparison lacks the expertise and technical background to understand all but the simplest of differences—and needs in-depth explanations and education to fully comprehend the more far-reaching differences.

Many companies use a simple "feature checklist" chart to compare equipment. However, these charts are so simplistic that they're meaningless. The comparisons on such charts are deceptive because not only are the devices dissimilar in terms of their technical attributes, but the features being compared are irrelevant. Lacking an understanding of the important technical questions that really need to be addressed, the user cannot properly evaluate the equipment. Thus, such charts manipulate the user into thinking that the presenting company's device is superior, when in fact the information provided is irrelevant and non-essential.

This deception may or may not be deliberate. Often, the manufacturer who devised the chart may not fully understand the features of a competitor's device, or even the basic physics behind how it operates and why it's constructed the way it is. In some cases, we have observed, manufacturers don't even understand the science and physics of their *own* equipment. In worst case scenarios, we have seen some manufacturers target potential customers who are obviously uninformed and lack the resources to fully educate themselves—and who therefore are unable to make an informed purchasing decision.

We emphasize that we are *not* trying to duplicate Royal Rife's equipment. Rather, we seek to accomplish similar reported results. If Rife were alive today, he would legally be prevented from using the equipment and techniques of his time. However, we believe that he would personally embrace the strategy and innovations of today's science to build even better equipment, and thus even more effectively accomplish his goals.

In an effort to educate our customers and the general public, we will compare various *classes* of devices rather than individual units. W want to help the user better understand the genuine differences between machines, and make informed decisions that will allow the selection of the equipment ideally suited to his or her unique, personal needs. So, rather than a checklist type comparison, below are *explanations* of typical comparison points.

PULSED TECHNOLOGIES

www.PulsedTechnologies.com www.PulsedTech.com www.pulsedtech.RO

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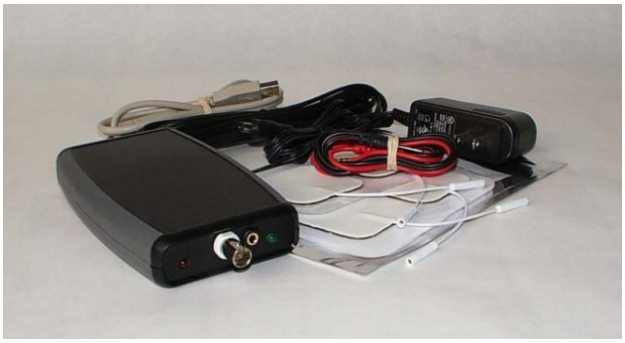
Many of the issues mentioned herein are discussed in much greater detail in various electronic documents by Holman and Dorneanu. Please ask your representative for referral.

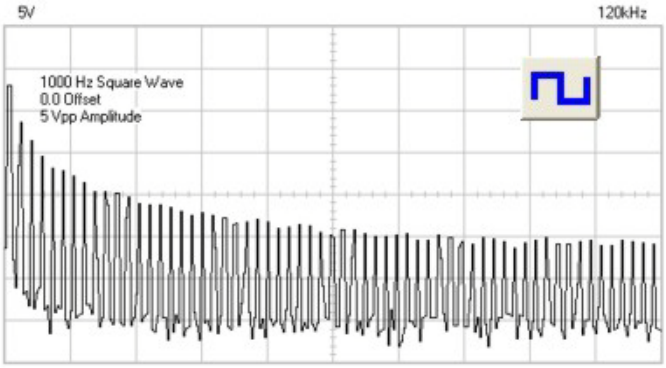
Frequency Generation & Contact Type Devices:

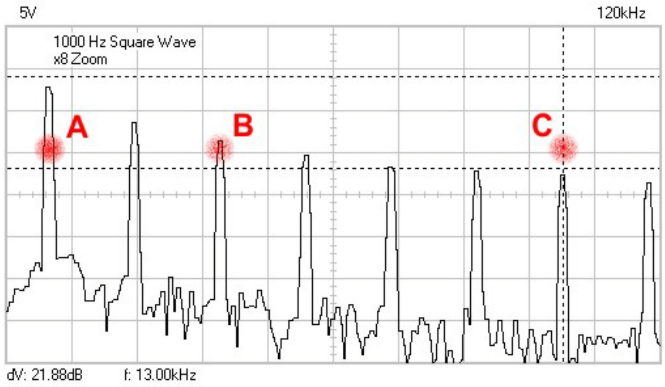
Examples: GB4000, Energy Wellness, Global Wellness, ProWave, JW Labs, R???, Pulsed Technologies PFG, PFG2, & PFG2x

There are many types of frequency generators, with different capabilities. Most generators are limited, with the ability to create and distribute only a few waveforms. The Rife community has primarily relied on generators that output square waves. The square-shaped or square wave has many harmonics, (generated multiples of the original frequency). The reason for using square waves is based on the supposition that a harmonic will have enough amplitude (power level, or "volume") to be effective at the actual MOR (Mortal Oscillatory Rate), which is higher than the actual frequency being used. This is important, as most contact and radiant devices have a limited frequency range. Unfortunately, each harmonic suffers a logarithmic reduction in amplitude, and by the time the effective harmonic is reached, there may not be enough amplitude to accomplish the desired task.

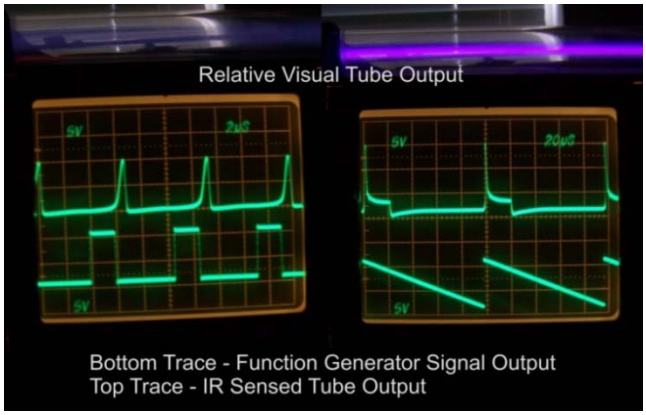


Both *in vivo* (live host, clinical) and *in vitro* (Petri dish, laboratory) trials have proven that this "one-size-fits-all" approach to using square waves is unwise and ineffective. While a square wave does emit harmonics across the spectrum, you can see in the spectral analysis below that without the proper planning, even when the proper frequency is used there may not be enough power to accomplish the desired task. Note the low amplitude, or height of the wave.





The commonly used square wave shown here is not giving the desired output to the plasma tube. The modified ramp signal (unavailable on virtually all other devices) is clearly driving the circuit in an optimal manner to provide an exceptional output from the plasma in the desired waveform … INCLUDING the characteristics of exceptionally fast rise time and the high potential (voltage) burst on the front end of the waveform that has long been acknowledged as extremely important to effectiveness.



IMPORTANT! Many frequency generating devices that are sold to the public as Rife contact devices were designed to interface and drive relatively low impedance electronic circuitry. The extremely high impedances associated with the human body are tens of thousands of times higher than what is expected in most electronic circuits. When impedances are not well matched, the wave forms deteriorate dramatically—resulting in a far less effective or even totally useless signal, and a poor and inefficient transfer of energy from the device.

PFG Series Frequency/Waveform Devices *(PFG1B, PFG2A, PFG2X)*

	PFG1B	***PFG2A***	***PFG2X***
Frequency Range (Hz)	**.01 - 1M**	**.1 - 100k**	**0.1 – 3M**
Analog/Digital	**Digital**	**Digital**	**Digital**
ALL Pulsed Technologies devices use computer controlled, precision Direct Digital Synthesis (DDS) for frequency generation and accuracy. It is VERY uncommon to find ANY unit today that truly creates frequency in an analog manner although some low-end devices do use an analog control to adjust the frequency. This type of control is problematic and typically unstable (although it's very inexpensive to build, usually costing less than $10). Unfortunately, some of these circuits are used in some Rife manufacturers' equipment.			
Waveforms (library)	**Unlimited**	**Unlimited**	**Unlimited**
Unlike most other Rife-type generators—which offer only a few standard wave shapes—all of Pulsed Technologies devices allow for an unlimited set of waveforms, including those developed by our own researchers and end-users. Our research has shown the importance for such varied wave shapes.			
Duty Cycle	**Unlimited**	**Unlimited**	**Unlimited**
Sweeps	**Yes**	**[unknown]**	**[unknown]**
As mentioned in some of our other technical literature, sweeps—though perhaps useful for more limited equipment—are ultimately not desirable for the most effective results. Although some Pulsed Technologies equipment does provide sweep capabilities, controlled and programmable micro-stepping (featured in all Pulsed Technologies equipment) provides a far more efficient delivery method to better accomplish the same intended goal of most user.			
Jitter	***No***	***Yes***	***No***
Normally "jitter" could be considered undesirable. However, mathematically introduced jitter in this case has the advantage of effectively widening the fundamental and addressing closely adjacent frequencies while maintaining constant desired frequency. In many ways, this essentially provides the advantages of both analog and digital in a measurable and predictable manner. Note: although this may be ideal for some contact application methods, this is known to cause problems when used with plasma devices at very high frequencies.			
Gating	***No***	***No***	***No***
Gating has long been touted as a desirable feature for Rife type devices. In layman's terms, gating is a brief pause in the steady stream of frequency pulses. The pause has the effect of allowing the first pulse after the return of the pulse stream to be slightly higher than normal. We agree the strong pulse is beneficial. However, the way in which Pulsed Technologies equipment delivers its unique wave forms (see wave photos, prior page), achieves comparable and even better results without the need to sacrifice or "save" energy for a single pulse.			
Multiple Frequencies	***No***	***No***	***No***
Although the ability to address "simultaneous" frequencies may seem like a time saving convenience, we believe that this demonstrates marketing sophistication more than it does usefulness. When more than one frequency is used simultaneously, wave distortions are created because the waves interfere with each other. This negates any positive benefit that would have been present.			
RF Carrier (modulated carrier)	***No***	***No***	***No***
It is our experience and positions, it is best to minimize or prevent any harmful RF exposure.			
Impedance	**Low/Ultra Hi**	**Low/Ultra Hi**	**Low/Ultra Hi**
(Low for electronic equipment, Ultra-High for contact applications) Pulsed Technologies equipment provides separate outputs and connectors, appropriately matched levels for convenient uses.			
FDA certifications*	***No***	***No***	***No***
For the most part, Rife-type manufacturers who tout FDA certification are being deceptive. While their effort in obtaining certification is commendable, it typically has little relevance outside the application for which the certification was issued—and usually has no relevance to the uses for which most clients have bought the machine. No current Pulsed Technologies device has been designed for any application requiring submittal for FDA approval.			

Radiant Type Devices:

All radiant devices require some sort of accurate signal generation which can be an internal (integrated), or external (separate), device.

Examples: Resonant Light - Perl , RIFEforLIFE BR-100,

Bare-Rife - Low voltage/high current RF radiant plasma device.

Of the currently marketed devices, the patented Bare-Rife type device most closely resembles the RF architecture of Rife's original systems utilizing commonly available components. While end-users are permitted by the patent-holder to build non-commercial units for private/personal research, the obligation for proper and legal RF emission is the sole responsibility of the user. Because it is an RF emitting device, it has been our personal experience, most end-users do not have the background to comply or operate the device in a non-disruptive, non-interfering, legal manner to comply with federal and worldwide mandates. Unfortunately, because of their limited understanding, besides interfering with other electronic services, they may also unwittingly and unintentionally expose both themselves and others to RF energies that could be harmful. In the hands of a skilled and trained practitioner/researcher, when used diligently, this can be a very effective device. Mr. Holman of Pulsed Technologies is a licensed Bare-Rife manufacturer.

EMEM - high voltage/low current radiant plasma device.

EMEM devices(a good introductory type device for investigating Rife technology), have become quite popular in recent years due to their ease of construction and relatively simple operation. EMEM devices are however severely limited to relatively low-frequency operation ….typically covering only a portion of the audio spectrum, and most exhibit comparatively poor functional performance over much of that range.

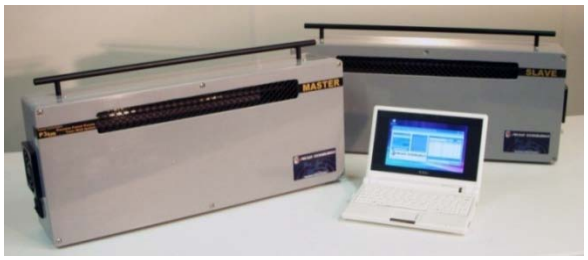
Important Note: Some EMEM-type devices have incorporated a spark gap device which both introduce spurious and chaotic RF energy, adversely affecting frequency accuracy that might have been present.

Mr. Holman and Mr. Dorneanu no longer manufacture this type of device. They have made available explicit pictorial instructions freely available to anyone desiring to easily construct this type of device on their own. http://www.IntroductionToRife.com/pmr-plasma.pdf

Many devices made by modern manufacturers are little more than this readily available and free basic circuit (regardless of price).

P3 Series Plasma Devices *(P3, P3+, P3pro, P3tm)* - *Also high voltage/low current, vastly extended range, non-RF, precision high power, radiant plasma device.*

These P3 (Precision Pulsed Plasma) devices are largely unknown to the general Rife community because Pulsed Technologies has focusing on working closely with selected doctors, practitioners and researchers worldwide to validate the science and better perfect the operational characteristics based on feedback from practitioners and researchers. The current P3 series product lines consist of both internal and external computer-interfaced frequency/waveform generation subsystems, intended for both professional and lay use. Some 2009 systems also contain oscilloscope, spectrum analysis, and other monitoring and recording capabilities.



In contrast to devices with RF emissions—requiring one to maintain a "safe" distance to minimize RF exposure—none of the P3 devices have this feature. In fact, many users find it beneficial to lay their hands on the tube for a better effect. Others allow the system to run in an automated/scripted fashion, freeing them to work at the computer, rest nearby on the sofa, watch television, or simply do normal errands around the house. Practitioners have found it useful for "group sessions," with clients casually sitting and reading in a lounge environment. Private laboratories have reported its usefulness in minimizing all contamination in environments that must be kept biologically clean.

	P3, P3+	***P3pro***	***P3tm(master), P3tm(slave)****
Operable Frequency Range (Hz)	**.01 – 100k**	**.1 - >100k**	**.1 – >100k**
*All Pulsed Tech plasma devices have been tested and operate in excess of 100,000 Hz (or higher) for lengthy durations although currently this is the recommended higher-end parameter.			
Power Requirements	**110/220**	**110/220**	**110/220**
All Pulsed Technologies equipment is very energy efficient allowing for all but the worst of power fluctuation in even 3rd world countries. Actual supply power required varies from devices but all are easily satisfied on 150 watt service thus allowing computer and devices to easily operate on most UPS, battery, and solar systems, etc. in areas where power may be unreliable or unavailable.			
Dedicated Power Required?	**No**	**No**	**No**
RF, MWO, high current, and poorly designed electronics occasionally specify the requirement of "dedicated circuit". This requirement is typically to "help" prevent generated unfiltered electrical noise, spikes, etc from interfering or even destroying other electronics on the same circuit and/or to "help" prevent similar interference or destruction from other devices on the same circuit. All Pulsed Technologies equipment is designed and tested to incredibly high standards meeting or exceeding most standard international certifications and approvals.			
Plasma Tubes	**Yes, new**	**Yes, new**	**Yes, new**
One of the most critical components of the radiant device is the delicate plasma tube itself. Holman & Dorneanu have been working for years with both our US/domestic and EU/eastern European affiliates to develop the ultimate high performance plasma tube. These last 2 years have seen extensive testing and we are pleased to say that early 2009 will begin the full transition to the much higher performance European tubes. Current owners of Pulsed Technologies equipment will be able to be upgraded at minimal costs.			
Upgrades			
In keeping with Pulsed Technologies modular designs, most products can be upgraded at minimal costs insuring that ANY Pulsed Technologies' product remains a sound investment, for now and in the future.			