



SOMAPULSE

... great science leads to great health

User Manual

Model P2a



Introduction

The SomaPulse is a portable PEMF device developed as the result of scientific research and development that evolved from programs funded by NASA (National Aeronautics and Space Administration) in the 1990's. Dr. Robert Dennis was the design engineering and biophysics consultant to the NASA program and invented the initial NASA device. He has continued to develop the technology in that device under an exclusive sub-license of the NASA patents. After more than 15 years of extensive spending for research and development of this PEMF technology, radical design enhancements, and several new patents beyond the original NASA research, this technology is now being introduced for broader use with both humans and animals.

Kit Contents

1. P2a pulse generator
2. 9 volt non-rechargeable battery
3. Two sets of coils with standard (20") length leads
4. User manual (this document)
5. Elastic wrap





Pulse Generator Details

- A. Connector for Coils: Receives the plug for cabling to the coils.
- B. LED lights: green indicates stimulation mode during operation. Yellow indicates power-up diagnostic or rest mode during operation. Red indicates a problem with the device that is not serviceable by the user.
- C. Program selection switch: allows you to choose which program to run.
- D. Socket for 9V battery: + and – signs indicate the direction the battery should be inserted.

General Precautions

The SomaPulse does produce an electromagnetic field, and although the power is very low (about 1/3 the power of a cellular telephone), it may affect those who are highly sensitive to PEMFs.

The SomaPulse is powered by a 9V battery and the FDA CVM expresses no concerns regarding the use of this device for veterinary clinical and research applications.

Batteries

The P2a can use any type of 9V battery commercially available, though generally Alkaline (non-rechargeable) and NiMH (rechargeable) are used.

General Instructions for Use

Attach coils to the generator, then place fresh battery into the unit. Make sure that the battery clicks into place and that the polarities match the polarities on the unit. Place the coils on the body across the area of injury as seen in figures 2.1 - 2.4 on pages 6 – 7. Wrap the coils securely using elastic bandages, straps, sports tape, etc. to keep them and the generator securely in place.

Turn the device on by choosing a program. **Program 0** is “off.” Always use the program selected for at least one entire 30 minute length.

- **Program 1:** “Normal” power setting. It runs a 30 minute program with 10 minutes of rest. (~80 G peak). Stimulation pattern 1 for 10 minutes, stimulation pattern 2 for 10 minutes, stimulation pattern 3 for 10 minutes, “rest” mode for 10 minutes, then repeats. This is recommended for superficial or shallow injuries, or sensitive tissues.
- **Program 2:** “Super” power setting. (~130 G peak). It runs a 30 minute program with 10 minutes of rest. The stimulation pattern is the same as program 1 but at a higher peak magnetic field strength. This program is recommended for deeper injuries or injuries that are in thicker areas of the body, or for tissues that are not responding to program 1.
- **Program 3:** This program is identical to program 2 with a 30 minute program but with no 10 minutes of rest. This program is recommended for thick or deep tissue stimulation for shorter periods of use or as otherwise needed.

When you turn on the generator the orange LED light will flash three times, and then the green light will continually flash. The orange light will flash during the “rest” periods. The generator will make a “clicking” or “chirping” sound. When the coils are held close to the ear a quiet clicking sound may be heard as well.

Notes:

- Indications of a dying battery: dim LED lights, quieter generator/coil sounds.
- Removing the battery when the system is not in use will help prolong the life of the battery.

- If you use any power source besides a 9V battery and the unit is damaged, or if the springs are damaged from inserting the battery incorrectly, the warranty will be voided.
- If you are active during treatment, there are two small holes on the same side and opposite to the jack the coils are inserted into. You can use a twist tie through those to secure your coils.
- Animals cannot harm themselves by chewing through the coils or cables, but they can destroy them by doing so.

SomaPulse Coils

This unit comes with two coils which plug into a single socket.

Each coil is flexible, which allows you to bend and shape the coils to conform them to many different surfaces of the body, including joints. Note that the more you bend the coils, the more often they may have to be replaced. The coil configurations result in the two different stimulation zones illustrated in Figures 1.1 and 1.2 on page 5. The darker regions of the stimulation zones indicate where the pulsed magnetic fields are strongest.

Healthy tissues cannot be harmed by the PEMFs, so it is okay to reposition the coils to envelop the area of injury or need from different angles.

Coils may also be used separately on different parts of the body, i.e. one coil on one shoulder and one coil on the other shoulder. This will produce a magnetic field of around 70 G per coil.

An additional configuration frequently used is to stack the coils one on top of the other, **bumpy side touching bumpy side**. This appears to increase the field intensity by almost double. Stacking the coils on top of each other can produce a magnetic field that extends nearly 3 feet.

Protecting the coils

When the system is used, sometimes marks are left on the skin that appear as burns or areas of redness. These are generally aesthetic, but can sometimes be painful to someone with especially sensitive skin. To avoid these marks, we advise you do not allow forms of ointment, liniment, unguent, oil, or grease of any kind to come in contact with the coils. If you have very sensitive skin, we advise to put a layer of bandages, a towel, or clothing between the coils and your skin.

Opposite Side Configurations

The opposite side configuration is generally used for thinner body sections and joints, such as arms, elbows, knees, ankles, etc. In such cases the two coils are located on opposite sides of the stimulation zone, i.e. one on each side of the elbow. The P2a unit produces a magnetic field that is sufficient to penetrate a larger body part as well, such as a chest, across the hips, etc.

Figure 1.2

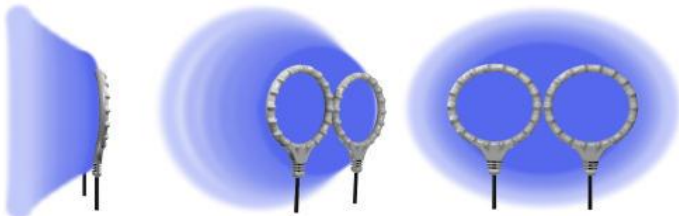


Stimulation zones of opposite side configuration

Side by Side Configuration

The side by side configuration can be effective for large, thick parts of the body when the injury is relatively close to the surface, within 2 – 4 inches of the skin. A side by side configuration will lead to a higher amount of energy to that location.

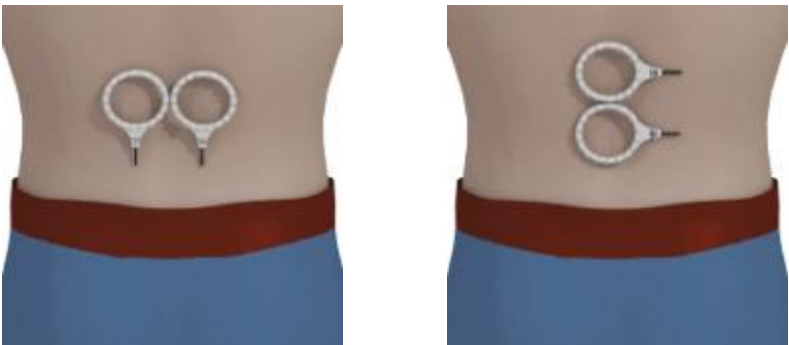
Figure 1.2



Stimulation zone of the side by side configuration

Coil Placement Examples

Figures 2.1 – 2.4 (pages 6 – 7) show a few areas that can benefit from the SomaPulse. The coils are shown in a non-flexed configuration for clarity. Optimal separation across a body area is 4 inches or less.

Figure 2.1**Knee: Opposite side****Knee: side-by-side****Figure 2.2****Lower Back: side-by-side****Lower Back: side-by side**

Coil Configurations Continued

Figure 2.3



Neck: side-by-side



Neck: opposite side

Figure 2.4



Shoulder: side-by-side



Shoulder: opposite side

Notes on Coil Placement:

- If pain/injury is localized, treat the part of the body that is in pain/injured.
- If the problem is systemic, treat the solar plexus.
- If the problem is in deep tissue, use the stacking method described on page 4.
- If the problem is from a condition, please contact 866-926-5006 for further assistance on where to place the coils.
- For immune system support, place the coils over the upper part of the breastbone to stimulate the thymus gland.

Trouble Shooting Guide

I can't hear the coils "clicking."

Inspect the wires and coils to make sure they are not visibly broken. Remove the coils (with the battery out of the generator) and clean the connector with a clean cotton cloth (i.e. a clean t-shirt) and then reinsert the plug. Make sure the coils are completely and securely connected. Insert a freshly charged or new battery and choose a program. If the lights fade after a minute, the coils are probably damaged or worn. The coils are disposable and may need to be replaced every 2-3 months depending on use. If these steps are not producing results please contact your vendor.

The LED lights are not working, or they turn off after a short period.

First replace the battery with a fully charged or new one. Make sure the battery is fully attached with the correct +/- polarities. If the problem persists then please contact your vendor for instructions.

My pulse generator was exposed to excess water.

Note that this situation is not covered by the warranty. You can place the unit in a sealed container or bag of dry, uncooked rice for 2 – 3 days. The rice will remove the moisture. Discard rice after using. Do not try to remove moisture any other way, i.e. microwave or convection oven. Retry the unit with a fresh battery. If it is still not functioning, contact your vendor.

My unit doesn't help with the problem I bought it for.

Please note that the SomaPulse takes different lengths of time to heal different people and different injuries or needs. Chronic and older injuries take longer to heal than recent injuries. There may not have been enough time allotted for the problem to fully heal.

First verify that the device is functioning by checking the battery, LED lights, and coils. Reread the manual to make sure that you are using the device properly. If there are still questions, contact your vendor to make sure that you are correctly placing coils and otherwise using the unit properly.

I am very sensitive to PEMFs.

You should place a barrier between your skin at the coils, like clothing or

a bandage wrap. Run program 1 instead of 2 or 3. Complete an entire 30 minute program, but if you are feeling jittery, let your body have a longer rest than the 10 minutes the device provides.

The central nervous system is the most sensitive part of the body, so treating the feet will cause fewer disturbances in a sensitive user. It is also beneficial to treat your water. Placing a bottle of water on a coil and running a program will cause the water to become magnetized.

The device helps, but the problem recurs at a later time.

A good rule of thumb is to use the device for at least twice as long as it took to heal the injury. For example, if it took one week to heal your injury, keep using it for an additional week. There are no adverse affects to using the device for an extended period of time. Using the system consistently can lengthen the time between the occurrences of the problem.

Can I hurt myself with PEMFs?

No. When your cells do not need PEMFs they will not react to them. If you have left it on for too long you may feel jittery, as if you have had too much caffeine. If this happens, just turn the device off and let your body rest. It's possible you may need to use it for less time or, if you are using program 2 or 3, to move down to program 1. Again, this is not damaging to your body.

Is it safe to use with a metal joint replacement?

Yes. PEMFs cannot penetrate metal, so you may have to configure them around the joint, but they cannot harm the metal.

I need to store my SomaPulse.

The system can be stored in a dry, temperate location. It is recommended to remove the battery to prevent corrosion or depletion. Use a fresh (or freshly charged) battery if the unit has been in storage.

Can I use the SomaPulse if I have a pacemaker?

It is okay to use the system on any part of the body away from the pacemaker. **DO NOT PLACE ANY COILS OVER THE PACEMAKER CONTROL UNIT.** Make sure to secure coils in a way that they will not fall over the pacemaker control unit. If you have any concerns, check with your cardiologist.

Technical Description

The basic frequency is 5 Hz alternating bipolar, almost trapezoidal wave, magnetic pulses. This induces about 9 to 10 Hz bipolar electrical pulses in the tissue as the magnetic field ramps up and down for each magnetic pulse.

The following measurements were taken with a fresh, non-rechargeable battery:

- Peak intensities on setting 1 in Gauss (G)
 - I. Between 68 and 75 G (6.8-7.5 milliTesla) with the coils facing each other 1 inch apart.
 - II. Between 34 and 38 G (3.4-3.8 milliTesla) for an individual coil separated from the paired coil by at least 10 inches.
 - III. Between 78 and 84 G (7.8-8.4 milliTesla) with the coils stacked on top of each other.
- Peak intensities on settings 2 and 3 in Gauss (G)
 - II. Between 130 and 140 G (13-14 milliTesla) with the coils facing each other 1 inch apart.
 - III. Between 64 and 70 G (6.4-7 milliTesla) for an individual coil separated from the paired coil by at least 10 inches.
 - IV. Between 140 and 150 G (14-15 milliTesla) with the coils stacked on top of each other.

System Information

- Wave Form: Square
- Frequency: 5, 10, 100 Hz
- Maximum Intensity: 80 Gauss per coil, 200 Gauss with coils stacked
- Number of programs: 3
- Program duration: Continuous
- Power: 9V Battery
- Coils: copper covered in medical-grade thermoplastic elastomers

System Dimensions

- Control box: 2.5" x 4"
- Coils: 2" diameter, 20" length

Coil Lengths

- Short (available for purchase): 10in/0.26m
- Standard (included in package): 20in/0.52m
- Long (available for purchase): 47in/1.2m

Extension cables

If more length is needed for coils, you can use a three-contact 1/8" stereo audio cable extension. You will need a female coupler to use this with the coils. Plug the cable extension in first, then the coupler, then the coils. Using an extension will lessen the power of the coils. You can also purchase different length coils at www.somapulse.com.

Factory Warranty

12 months on control box; 1 month on coils

Manufacturer

Micro-Pulse, LLC
102 Butterfield Court
Chapel Hill, NC 27516
USA



SomaPulse™

Distributed by: Somapulse Corp

Additional kits and replacement parts are available for purchase through SomaPulse. Order at www.somapulse.com or by calling 888-926-5006.

