

# NEURONIC

research by *QuietMIND*  
FOUNDATION



NEURADIANT  
1070

## USER MANUAL



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Please note this is not a medical device. This product is not intended to diagnose, treat, cure or prevent any disease. These statements have not been evaluated by the Food and Drug Administration.

# 1. Overview



## Marvin H. Berman, Ph.D

Co-Founder and Clinician at Neuronic

Thank you for purchasing our product. We are excited for you to use our latest device, **the Neuradiant 1070**. Our device is unique in that it uses the 1070nm near-infrared wavelength and is the first device that gives the user the option to control each quadrant of the helmet in correlation to four brain quadrants (front, back, left, right).

Research<sup>[1]</sup> shows that photobiomodulation, which is the term used to express the therapeutic use of light on the body, has many beneficial effects such as improving the energy production in cells, accelerating blood flow, enabling more oxygen circulation in the brain, and enhancing neuroprotective proteins and growth factors.

Neuronic has partnered with the Quietmind Foundation, a nonprofit research and consultation organization in the USA, that has spent the last 25 years conducting clinical and applied research<sup>[2]</sup> involving the use of neurofeedback and photobiomodulation. Neuronic is providing this state of the art photobiomodulation device, along with an hour's brain health consultation with a qualified clinician, for instruction on how to get the best from your device.

## 2. Getting Started

### Packing List & Accessories



Helmet	Fixation Sponges
Handbag	Instruction Manual
Power Adapters	Quick Start Guide
Control Box	Connection Cables
Foam Headpiece	Velcro

### Set up

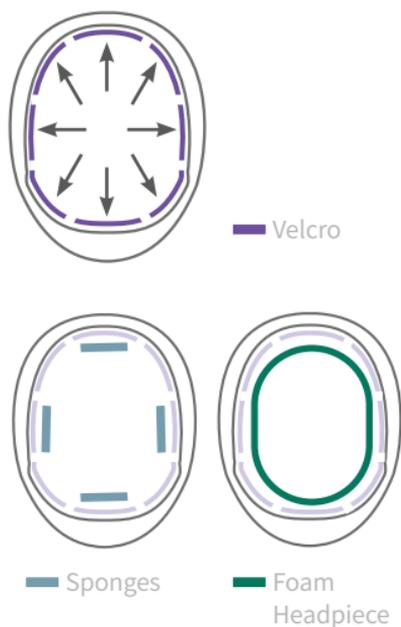
1

#### Fitting Guide

Remove the helmet and components from the case. Take the velcro strips from the adhesive paper and apply onto the inside of the helmet as shown in the diagram. Apply the sponges or foam headpiece onto the velcro so the unit is fitted during use.

**Do not place any velcro on the clear plastic inside the helmet.**

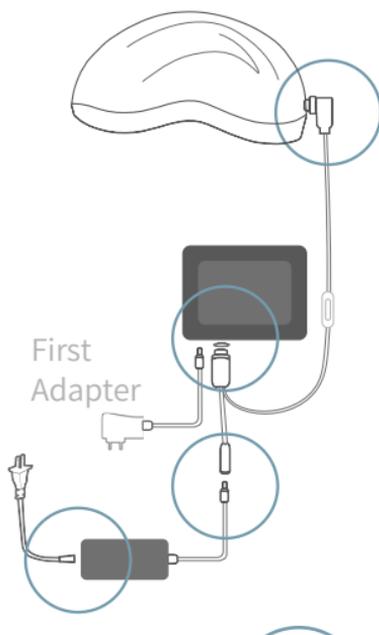
#### Bottom View



2

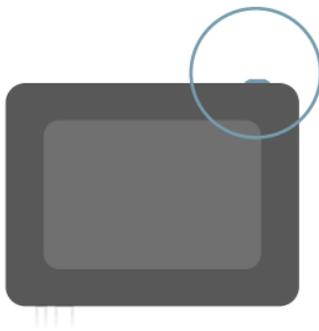
### Turn on the Device

Connect the helmet with the controller, connect the controller with the first power adapter.



Connect the controller with the second power adapter.

After connecting the cables, you can turn on the device via the [button](#) on the **top right**.



## 3. Consultation

A 1-hour consultation is offered to those who purchased the **Neuradiant 1070** and is designed to ensure safe and effective use of the device for improving general health and wellness. We will answer questions on the use of the different programs, answer specific questions you may have, and construct a 'real world' set of metrics that will define clinical progress. To book your consultation, please email us at:

[team@neuronic.online](mailto:team@neuronic.online)

Customers who purchased the **Neuradiant 1070** with the 4 quadrant function will be provided with a code (see page 9) to access the clinical protocols and an appointment link to arrange your **90-day personalized consultation**.

## 4. Programs

The four default programs are designed to provide specific types of stimulation to support the establishment of specific physical and mental states. We recommend using the device twice a day, morning and evening.

**We do not recommend exceeding this daily use.**

### Program Inputs

Each program is unique and made up of three main inputs; time, pulse rate, and intensity which are outlined below.

#### Time

The amount of time the program will run from start to finish. The unit will make a beep at the start and end of the chosen program. **The maximum time for a program is 30 minutes.**

Time  
00:00

#### Pulse Rate

The pulse rate is the frequency that the light flashes every second. At 10Hz the light will flash 10 times per second, similarly at 40Hz it will be 40 times per second. **The maximum pulse rate is 9999 Hz.**

Pulse Rate  
00

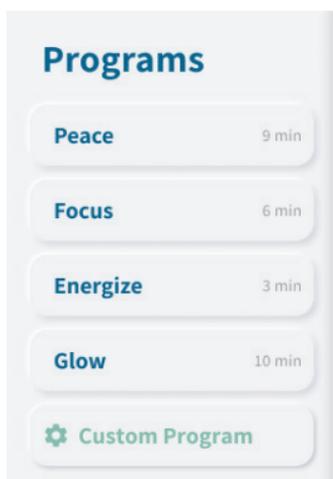
#### Intensity

This reflects the duty cycle of the light or the amount of time in which the light will be on for every pulse. For example, if the light pulses at an intensity of 25% once a second, it means that the light will remain on for only 0.25 seconds. **With full intensity of 100%, no pulse rate can be set.**

Intensity  


## Program Descriptions

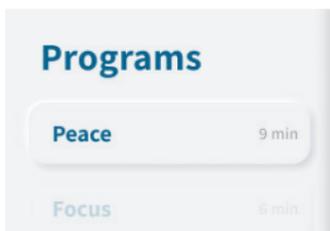
### Understanding the default Programs



Each default program has been developed with different inputs. After running the program, we recommend turning off the device. Notice the effects from the device, if you feel positive effects and wish to continue the therapy, you can increase in increments of 2 minutes each day, up to a maximum of 20 minutes.

### Peace

This program uses a 10Hz pulse rate associated with alpha brain waves, fostering a relaxed and restful state of consciousness. The light intensity is low so that you can enjoy a longer exposure time of 9 minutes. This program can be used with meditation activities or other integrative mind-body awareness practices to calm the central nervous system further.



Time	<b>9 min</b>
Pulse Rate	<b>10 Hz</b>
Intensity	<b>25%</b>

### Focus

The Focus program uses a 40Hz pulse rate associated with gamma brain waves. Gamma brain waves have shown improved cognitive functioning, including short-term memory, reaction time, mental flexibility, and positive neurophysiological effects. The recommended duration is 6 minutes. We encourage starting with 3 minutes, pausing to notice how you feel before continuing with the second 3-minute session.

Peace	9 min
<b>Focus</b>	6 min
Energize	3 min

Time	<b>6 min</b>
Pulse Rate	<b>40 Hz</b>
Intensity	<b>50%</b>

## Energize

The Energize program boosts cortical blood flow, giving more oxygen to the brain. The 20Hz Beta brain waves help to increase attention and clarity. This pulse rate is also associated with increased adenosine triphosphate (ATP) production. The duration of this program is slightly shorter as the intensity is higher, giving you a short burst of energy.

Focus	6 min
<b>Energize</b>	3 min
Glow	10 min

Time	<b>3 min</b>
Pulse Rate	<b>20 Hz</b>
Intensity	<b>75%</b>

## Glow

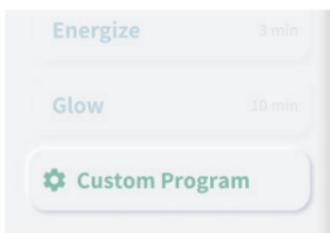
Encourages renewal and revitalization of cellular health, increasing blood flow and aiding removal of waste products. This program can be used for supporting general brain wellness, and for recovery after a period of ill health. This program also has cosmetic and dermatological applications as it improves the blood flow to the skin by stimulating elastin that improves skin appearance and enhancing blood flow to the scalp and thus promoting hair growth resulting in a truly healthy glow. This program does not use pulsing as the intensity is set to 100%.

Energize	3 min
<b>Glow</b>	10 min
⚙️ Custom Program	

Time	<b>10 min</b>
Pulse Rate	<b>- Hz</b>
Intensity	<b>100%</b>

## Custom Program

These are individualized programs developed in consultation with a qualified clinician. Each program is customized to efficiently achieve your personal wellness goals.



Time - min

Pulse Rate - Hz

Intensity - %

## Clinical Protocols & 4 Quadrant Functionality

Clinical Protocols are exclusively for use with the 4 quadrant feature which can only be used when purchased with 3 months of consultation with a qualified clinician. If you have bought the Neuradiant 1070 and wish to upgrade the device, please contact Neuronics at [team@neuronics.online](mailto:team@neuronics.online)

There is growing recognition in the neuroscience community regarding the role of brain networks as being a primary driver in overall brain performance. Efficient communication among and between brain networks is a principal focus in developing effective digital neurotherapeutic (DN) applications. Neuronics is contributing to the advancement of DN applications with the introduction of the Neuradiant 1070 with 4 quadrant function, by providing **independently programmable pulse frequency, intensity, and duration to four key brain quadrants** (front, back, left, right) and thereby allowing users to define specific regions for customized stimulation protocols.

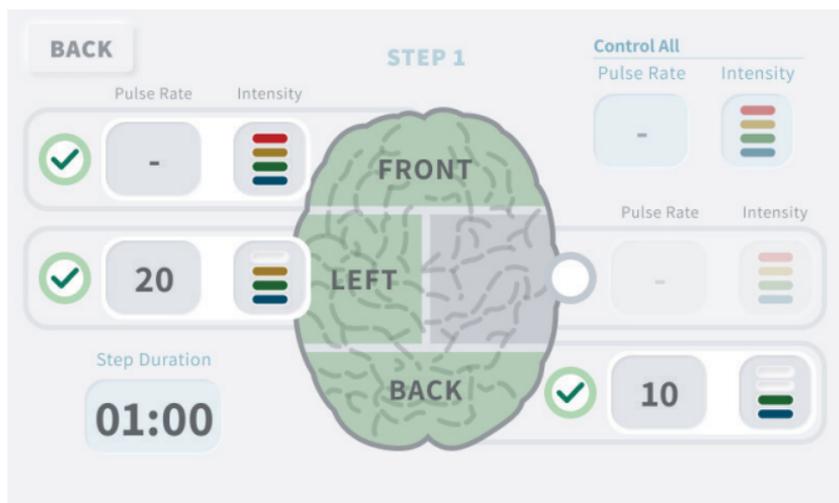
**Clinical Protocol Passcode:**





Note: Only available with 4 quadrant device.

The image below is the control settings for the 4 quadrant feature and should be used under the guidance of a qualified clinician.



In order to optimize the benefit for each user, we include a personalized consultation process. The consultation process has **3 basic components; assessment, protocol design and implementation, as well as continuous integration.** Each individual has their own case history, resources, and expectations and therefore the goal of the consultation is to understand and incorporate those factors into the Neuradiant 1070 protocol(s) they'll be using.

The initial consultation will include a thorough review of the personal assessment materials the user will have previously completed and returned to Neuronic. The review of past experiences and concerns will support the consultant in advising on the photobiomodulation protocol design, establish 'real world' metrics for evaluating progress, and suggestions for obtaining further consultation or support. At this time, users will be instructed and practice the safe and efficient use of the Neuradiant 1070 and how to modify a protocol.

## 5. Safety Guidelines

### General Guidelines

Photobiomodulation demonstrates a dose-response curve which means that there is a ‘sweet spot’ wherein the stimulation has the most positive impact on our cells and tissues. Too little stimulation provides little benefit, and too much stimulation can cause a diminishment of response.

We therefore strongly suggest that users accept two basic principles:

- More is not necessarily better. We’ve seen many instances wherein the best results come after relatively small amounts of stimulation, especially when it is delivered with the right pulse frequency and intensity.
- Indications that you have had too much light stimulation can occur during or shortly after (30 seconds to 10 minutes) completing a protocol. They can also appear after a few hours. If you know you are particularly sensitive to energetic or pharmaceutical stimulation in general, then we suggest that you use the device for a few minutes initially and build up the usage gradually. If indications persist, consult your healthcare professional and contact Neuronics for additional support.

### Helmet & Adapter Use Precautions

Please only use the adapter and transformer provided by the manufacturer to ensure the normal operation of the device. The company is not responsible for product failure caused by self-assembly or disassembly of the product. Please discontinue using the device if wet or there is visible damage to the helmet, adapter or cables, this includes usage in conditions of high humidity or temperature.

**Our company does not bear any responsibility for the damage or any accidents caused by improper use.**

## 6. Service Guarantee

You can return the device within the first 30 days for free. Additionally, we have an 80% refund policy, valid for three months from the time of purchase if our devices do not help you. Our product is covered with a 12-month warranty.

## 7. Disclaimers

Our product cannot guarantee the same effects on each individual. There are no known side effects of using our device. Still, we advise you to consult your local doctor and conduct your independent research before purchasing our device.

These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

**Please note this is not a medical device.**

**The focus of our consultation(s) is on the safe and effective use of the Neuradiant 1070 photobiomodulation device and is not to be considered medical advice, nor is it in any way to be considered a replacement for consultation with your current medical or other qualified healthcare providers.**

## 8. Appendix

[1] Treatment of Neurodegeneration: Integrating Photobiomodulation and Neurofeedback in Alzheimer's Dementia and Parkinson's

by Marvin H. Berman and Trent W Nichols



[2] Therapeutic Effects of Near Infrared Light Stimulation on Cognitive and Behaviour Symptoms of Dementia

by Marvin H. Berman, Damir Nizamutdinov, Xiaoming Qi, Jason Huang and Gordon Dougal.



### Product Parameters

Product Name	<b>Neuradiant 1070nm</b>		
Model Number	<b>GY-PDT1</b>	Wave Length	<b>1070nm</b>
LED Numbers	<b>256 pcs</b>	Power	<b>50mw/pc</b>
Total Power	<b>15W</b>	Optical Power	<b>24mw/cm<sup>2</sup></b>
Input Voltage	<b>100-240 V</b>	Work Voltage	<b>5V ~ 6A</b>
Input Current	<b>800mA</b>	Frequency	<b>0-9999 Hz</b>

**Neuronic Devices Limited**

Lacka, Carrig, Birr, Co. Offaly  
**Ireland**

**Neuronic Devices Operations GmbH**

Am Kindergarten 1, 57482 Wenden  
**Germany**

neuronic.online

**team@neuronic.online**

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[neuronc.online](https://neuronc.online)