



# MindSpa<sup>®</sup>

Personal Development System  
*Programmable*

Relaxation • Rejuvenation • Cognitive Improvement  
Performance • Learning

## Instruction and Use Guide



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## Instruction and Use Guide

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# A Note to You

## **Thank you for purchasing MindSpa®**

We strive to make MindSpa the most effective product possible while making it easy-to-use.

MindSpa is designed to be used right out of the box with minimal instruction. You certainly can begin to use MindSpa immediately by referring to the included Quick Start Guide. However, to ensure that you enjoy great results we have developed this comprehensive guide.

This manual is divided into three sections for ease of use.

Section I is an introduction to the features and operation

Section II provides information for attaining specific goals

Section III covers the programs, FAQ and additional information

When using MindSpa, we suggest trying the various programs. As each individual is unique, you will tend to gravitate naturally to the ones that you enjoy and work best for you. It is just a matter of choosing a program at a time and place that fits your schedule. Just use MindSpa on a regular basis.

We love hearing from our customers so please feel free to contact us with your experiences, questions or comments. We will respond promptly.

We wish you many years of benefit and enjoyment!

The A/V Stim and NeuroTech team

## Introduction

Your MindSpa system includes the control unit, led glasses (light emitting diodes) and earphones. MindSpa is generally used with eyes closed sitting or lying in a comfortable position for an average of 22 to 30 minutes.

The eyelids are quite thin so the flicking light provided by the led glasses easily penetrates closed eyelids. The light then reaches the brain in the form of electrical impulses by way of the optic nerve. These pulses of light, along with sound, create a subtle matching effect through the natural *frequency following response*.

MindSpa is a passive system meaning that no conscious effort on your part is required. Just sit back or recline, close your eyes take a few slow, deep breaths and relax. The only requirement is to use MindSpa in a place and time when you will remain undisturbed. Use on a consistent basis is the key to receiving long-term benefit.

The human brain contains billions of brain cells called neurons. Neurons use electrochemical activity to individually communicate. Brainwaves are the composite of the individual neuron electrical activity of the brain, which result in thoughts, actions and behavior.

Brainwave frequencies are measured on two scales: cycles per second, also referred to as Hertz (Hz), and amplitude, which is the intensity. For example, ocean waves serve as a familiar model demonstrating cycles (wave frequency=cycles) and amplitude (wave height=intensity).

Early in the 20th century scientists developed instruments sensitive enough to measure the minute electrical brainwave activity. Soon after the discovery of brainwaves, early experiments determined that these patterns could be altered by strobes of light blinking in the brainwave frequency range. These strobes created what is known as the *frequency following response*. In other words, they learned that by introducing external visual stimulus that brainwave activity could be modified.

Light and sound has a very powerful influence on brainwave activity. The mind naturally finds certain patterns of flickering light very soothing. Think of how relaxing it is to stare into a nice, flickering candle or fire. The auditory system responds very much in a similar manner. We are all familiar with the calming effect of certain musical compositions. This is true in nature as well. Close your eyes and imagine for a moment the sound of a gurgling brook, or waves lapping at the shore. These are common examples of how brainwaves are influenced by visual and auditory sources.

Over the years, working with psychologists, we have learned how to fine-tune these frequencies to provide long-term benefit. MindSpa generates specific patterns of light and sound to help naturally induce desirable brainwave activity known as the target state.

## About Brainwaves

Our brain operates primarily in four brainwave states. These states range from being wide awake and active, the *beta brainwave state*, to the calm, focused *alpha state*, and the creative, deeply meditative *theta state*, down to low wave, deep, dreamless, restorative sleep referred to as the *delta brainwave state*.

As you continue to use MindSpa on a regular basis, with the exception of the deep delta sleep state, these states will become quite easily recognizable to you. You can use this recognition to enter and maintain your desired target state, such as alert and focused, to calm quiet mind even while under mental pressure.

As an example, in practical terms this can mean that when you sense you are becoming agitated or stressed, you will have at your disposal an improved ability to exert conscious control over these situations. This will result in generally feeling better in a variety of situations that formally caused stress, sleep issues, low energy, and/or emotional discomfort. Through regular use you will learn to maintain your desired target state.

The following section contains a short primer on the four brainwave states. This will help you to better understand how you will get maximum benefit from the MindSpa programs.

**Beta** frequencies are measured from approximately 13 to 40 Hertz (Hz) or cycles per second. Low or moderate amplitude beta corresponds to our normal waking state of alertness where the vast majority of routine thinking and physical functioning occur.

High amplitude, fast beta generally reflects a state of heightened anxiety or stress, and feelings of agitation and discomfort due to mental over-activity. This is associated with what is commonly known as the fight or flight state.

When the high amplitude beta state is maintained for extended periods it leaves us feeling drained of energy and over time can erode our physical and emotional well-being resulting in health issues. Unfortunately, many of us operate in this state far too often due to the pressures modern society places upon us.

Using MindSpa's relaxation programs can significantly help to reduce undesirable high amplitude beta activity in just a few weeks. Many report experiencing immediate effectiveness. When you encounter common stress producing situations you will be better able to maintain an inner calmness with enhanced control of your life. Conversely, when you feel like you need a quick pick up, or when you just do not feel as mentally sharp as you would like to feel, MindSpa provides stimulation programs for entering the beta state.

**Alpha** frequencies are measured from approximately 8 to 13 Hz.

This represents a relaxed state associated with external attention. In the higher alpha range, it is the wakefulness state of relaxed and effortless alertness. Lower alpha wave activity is associated with the deeply relaxing meditative states.

Alpha waves are utilized for mental rejuvenation, accelerated learning, the creative process and peak performance in all areas of life including business, sports, and the arts. We enter into the alpha state during light meditative activities such as reading a good book. Additional examples are when performing relaxation-inducing activities such as exercising or going for a quiet walk or ride in the country.

If you want to resolve mental stress or sleep issues, MindSpa provides excellent passive training. It can help quiet the stress-inducing internal dialog which so often leads to sleep issues. Reducing this dialog will provide a positive impact. You will feel better!

**Theta** frequencies are measured from approximately 4 to 8 Hz.

This represents the deeply relaxed state of free flowing inward focus. It is an elusive state we naturally enter for a few minutes just before falling asleep and just before waking when vivid internal imagery is produced without conscious effort. It is also the deep, advanced meditation state and the seat of the creative process. The doorway to theta is by entering the alpha state on a regular basis. Under normal circumstances we will move in and out of the theta state for several seconds to several minutes at a time.

The great inventor Thomas Edison frequently took afternoon naps finding them particularly helpful when confronted with a difficult problem. He developed a technique where he would sit in a chair holding steel balls in one hand above a pan of water. Just as he dozed off, his hand would relax releasing the balls, waking him up allowing him to reflect on his thoughts while in that twilight state between alertness and sleep. To enter the creative theta state many greats throughout history have used similar techniques that we refer today to as a power nap.

**Delta** frequencies are measured from approximately 0.5 to 3 Hz.

This is where the majority of physical and deep mental regeneration takes place. This is the dreamless, deep sleep state. The delta state is entered through the natural sleep cycle. MindSpa helps train the mind to enter a deep state of relaxation that will lead toward more effectively reaching the delta state.

With regular use, MindSpa will become an indispensable tool that can help reduce stress resulting in better, deeper quality sleep, a sharper mind, and ultimately a better quality of life. We wish you much enjoyment!

## Package Contents

The MindSpa system includes the following components:

- ◆ Microprocessor-based programmable control unit
- ◆ High-response audio earphones
- ◆ One set each white led and blue led Multi-Purpose Glasses™
- ◆ Custom padded carrying case
- ◆ Four AAA batteries
- ◆ Audio patch cord
- ◆ USB cable
- ◆ Instruction and Use Guide
- ◆ 1 Year Limited Warranty
  
- ◆ Optional: AC adapter 110v / 7.5v 200ma

## How to begin

- Remove the protective tab from the battery compartment. This will activate the unit.
- The On/Off switch is located on the left hand side.
- Plug the white led Multi-Purpose Glasses into the jack located on the left side.
- Plug the headphones into the jack located on the upper right hand side.
- Set the volume and brightness to a low level when first starting out. We recommend beginning with light level 3, and sound level 1.
- Press the on/off pause button to begin the 10 second countdown.
- Get comfortable, close your eyes and relax.

## **Important Notice**

### **Special considerations before beginning use**

The use of MindSpa is safe for most people as no serious side effects are known. However, there are few particular cases where MindSpa should only be used with the prior approval and monitoring of a medical or health care professional.

- While on medication, or persons suffering from any sort of serious medical condition, including epilepsy, brain injury, mental impairments, visual photosensitivity, any form of macular degeneration. Those with serious physical conditions including those using a pacemaker or suffering cardiac arrhythmia or other heart disorders must consult with a medical professional before beginning use.
  
- Use with children or minors only with prior parental consent and monitoring.
  
- Do not use while under the influence of drugs or alcohol.
  
- Do not use while operating machinery, vehicles or other mechanical devices.
  
- Discontinue use if experiencing any sort of adverse reactions such as dizziness, migraine, or severe anxiety. Please consult with a medical professional if these or any other unusual symptoms occur.

A/V Stim, LLC, NeuroTech, Inc. makes no implicit or overt claims for cure or treatment of any medical or psychological disorders. No expressed or implied medical claims are made for A/V Stim, NeuroTech products. These products should not be used for the relief of any medical or psychological condition.



## Features & Operation

This section will help familiarize you with the various easy-to-use features. For further advice, or if you have any difficulties using MindSpa, please refer to the Frequently Asked Questions section of the manual.

### Downloading Sessions to MindSpa

You can download additional programs into your MindSpa. We will make available several libraries of programs for specific purposes. You will also have the ability to create your own programs using third-party software. Please visit [www.avstim.com](http://www.avstim.com) and click on the MindSpa Programmable Download link. Full instructions are available.

### Program Mode

The current program number is displayed when the unit is turned on. To choose a program, press the up or down buttons located on the left front of the unit. Press the Start/Stop/Pause button to begin your program.

### Light and Volume Settings

The light intensity and volume controls may be adjusted from a setting of 1 - 16. A small headphone or glasses logo will be displayed with the current setting. Start by setting the brightness and volume levels at a low, comfortable level. Adjust to slightly higher levels when bright light or outside noise is present.

Note: Hold either the volume, light or program mode buttons down for 1-2 seconds to automatically run through the various programs, volume or light intensity settings.

### Countdown Timer

Once you press the Start/Stop/Pause button the display will begin a ten second countdown. This provides time for you to get comfortably positioned. You may override the ten second countdown by pressing the button a second time. The program begins immediately.

### Time Remaining Display

The display will countdown the minutes and seconds remaining in your program. A small arrow on the display will indicate the program is active.

### Pause/Stop

To pause during a program, briefly press the Start/Stop/Pause button, press a second time to continue. You may stop a program by holding the button down for two seconds or by simply turning the unit off.

### Gentle On

This feature allows the volume and light intensity to gently increase during the first fifteen seconds of each program to enhance personal comfort level. During this period the volume and light intensity adjustments cannot be changed. After the first fifteen seconds you may adjust the levels.

### Sound

The MindSpa programs utilize specific tones to help enter the proper mind state. You may use the earphones provided with your unit, or you can use any good quality headphones set at low to moderate levels.

# Multi-Purpose Glasses™

MindSpa now includes the latest advance in auditory/visual technology for providing superior results. Our unique twelve light peripheral design is the culmination of nearly two decades of experience. These glasses were developed through research and testing at the brain science department of a prominent, internationally recognized university. Your Multi-Purpose glasses are an effective tool for learning, stress reduction, concentration and focus, performance enhancement, and power napping.

## Using the Multi-Purpose Glasses

Our Multi-Purpose glasses may be used either with eyes closed or open. Closed eye is the most common method for use with MindSpa. For best results we recommend using in low ambient light conditions.

There are several situations when open-eye use can provide effective results. Please visit our website Purchase page to download our free bonus e-Book for open eye use.

We first pioneered the use of open-eye stimulation several years ago while working with students to improve retention of reading material and their ability to focus. We have also worked with a number of elite and professional athletes in the performance enhancement field.

Open-eye use is beneficial where physical movement is kept at a minimum, such as visualization exercises, learning, and certain creative pursuits such as music, art, and rote memorization of written material.

When using with eyes open, maintain low to moderate light levels. Look past the lights rather than directly into them. Do not use while operating any machinery or tools.

## The Nap Process

Another common use for MindSpa is power napping. There is a rapidly growing body of scientific evidence demonstrating daily naps are a highly productive use of time promoting better health, mental alertness, creativity, better concentration, increases in worker and student efficiency, accuracy and output. One recent Japanese study demonstrated student test scores markedly increased with daily naps.

In addition to various health benefits, naps have an overall positive performance impact. We highly suggest making naps using MindSpa an integral part of your daily regimen.

## Sleeping and napping

The process of taking a nap while using MindSpa is distinct from sleep. Sleeping is primarily a regenerative process following a regular, 90 minute cyclic pattern of deep, dreamless sleep to light (REM) sleep. Napping is primarily a performance-based process where you remain at the edge of consciousness in a sleep-like state for a relatively short period of time. Sleeping and napping both help to enhance information processing and learning.

A “Power Nap” is a 20 - 40 minute period of revitalization resulting in increased energy and productivity, and provides reduction in feelings of stress and anxiety. The effect is cumulative when practiced on a regular basis for providing both short and long-term benefits. A recent study by NASA’s Fatigue Countermeasures Program found that pilots who took a short nap improved their performance by 34% and their alertness by 54%.

Among the best times for power napping are when you feel a general lowering of your energy level as commonly experienced in early or mid-afternoon. Generally, one power nap during the day or early evening is quite sufficient.

## Care of your glasses

Treat the Multi-Purpose lenses with care as they will damage if abused or mishandled. To avoid scratching the lens always store in the carrying case. On occasion, gently clean the glasses with a clean, soft, slightly damp cloth.

The arms on the visual stimulation glasses are adjustable. Hold firmly by the inner arm and gently pull or push. Adjust so they fit comfortably. If necessary, periodically lightly tighten the arm screws.

## About LEDs

LED (light emitting diodes) are semiconductor devices made out of pure silicon. Minute amounts of chemical impurities that are added to the silicon, such as gallium, arsenide, indium, and nitride, and then hermetically sealed in plastic resin. Each chemical provides a different color output.

Normal light bulbs produce light by heating a metal filament until it is white hot. However, when a very small current passes through the LED, it emits photons. Because LEDs produce photons directly they emit negligible amounts of heat and electrical radiation.

We are using among the most sophisticated LED surface mount technology currently available. These leds offer several distinct advantages:

- They are highly efficient allowing us to provide more leds per eye with lower power consumption.
- They provide an excellent high intensity light with superior full spectrum characteristics, and long term reliability.
- The wide dispersal angle ensures full coverage providing enhanced results.

## Section II – Using MindSpa

Sit or recline in a place where you will remain undisturbed. As you enter each session allow your thoughts to flow freely. This will help enable deep relaxation. After the first few minutes you will begin to feel yourself entering a calm, focused state of awareness. Just let go and enjoy! It is natural to drift into a light sleep-like state as this is part of the MindSpa process.

### How to gain maximum benefit from the MindSpa

MindSpa is safe when used as directed for the vast majority of people. However, please read Special Considerations on the prior page before beginning use. We recommend use by children with direct adult supervision.

To obtain maximum benefit, we suggest using the MindSpa system as an integral part of a program combining regular exercise with proper nutrition and adequate rest.

The system is designed for ease of use and to provide outstanding results. In general, it is best to begin with the relaxation programs. As a first-time user, we suggest beginning with demonstration Program 1 to acclimate to the system.

While we do offer suggestions for use, you are free to try the various relaxation programs in any order you like. The true strength of the MindSpa system is that you are not required to follow a specific formula or method to obtain results.

The relaxation programs may be used on a daily basis once per day or as often as several times per day. You may also use MindSpa as few as three to four times per week depending on your schedule. As previously stated, the key to success is to develop a regular routine as the effect is cumulative.

### Progressive Relaxation Programs™

We have developed an optional method using our Progressive Relaxation Programs™ in order, 1 – 16, to go into progressively deeper relaxation states. The frequencies of each program progress a little deeper and/or longer than the one previous to it. Proceed at your own pace. Using this method or simply trying various programs, with time and experience you will tend to gravitate towards certain programs or a certain order you like best.

### Stimulation Programs

The stimulation programs are useful for a quick mental pick up. We suggest using Programs 15-18 during the day as night use can be too stimulating for some potentially causing sleep issues. For the majority of the time, the relaxation programs will provide full benefit

## Releasing Stress

When stressed our breathing tends to be shallow and high in the upper area of our lungs. As you begin a session, breathe deeply and completely so you feel the motion through your diaphragm.

To practice this method, place your hand on your stomach. It should move up and down while you chest remains relatively still. Breathe in slowly and deeply, then hold for a count of three, and breathe out slowly and completely, after a few moments begin the process again. With a little time and practice your rhythmic breathing will become automatic and you will begin finding yourself using this method while going about your daily routine.

Now, also practice another easy but effective method known as muscle awareness. Exercise by relaxing your facial muscles, your limbs, your back and so on one by one. Start at the top and work down through every part of your body.

As you breathe for relaxation, pay attention to your body and become aware of any tension you feel. Identify these spots and then just let go of the tension in that area. Allow your mind to drift free for a few minutes from any concerns. It is an amazingly easy and effective technique.

## Focus and Attention

To assist with general focus and attention issues, please visit our website and download Dr. Olmstead's programs along with full instruction for use. It is demonstrated in Dr. Olmstead's research her programs are effective for the improvement of the most common focus and attention issues in children and adults.

## Sleep and Common Stress

To help relax into sleep, we suggest using the MindSpa Progressive Relaxation System™ over a period of at least four to eight weeks on a regular basis.

There are a number of causes for lack of sleep or sleep difficulties. We focus on what are among the primary causes – common mental stress usually brought on by work/school, relationships, finances and other common issues. We address the underlying cause rather than the outward result. Stress can manifest itself at night as an overactive mind in a high amplitude beta state. In other words; it is that internal dialog we each carry on inside our head that can overwhelm our ability to get a good night's rest.

In a manner of speaking, as you use MindSpa to help reduce stress, you are simultaneously reducing the volume and intensity of the mind's internal dialog, the mental chatter, especially at night. You will find it is a simple but very powerful process. We are gratified to report receiving positive feedback from many MindSpa owners over the years including those who have suffered from poor quality sleep for many years.

The following chart provides a guide to program length, starting, mid and ending frequencies that are generated by MindSpa. Please note that these frequencies do not necessarily directly correlate to the state you will enter. It takes time to train the mind to enter deeper states.

## Section III Program Descriptions

### Progressive Relaxation Alpha Training

Programs 1-6

	<b>Name</b>	<b>Time min</b>	<b>Start cycles/sec</b>	<b>Mid cycles/sec</b>	<b>Target cycles/sec</b>
<b>1</b>	Alpha I	22	12.5	9.0	8.0
<b>2</b>	Alpha II	25	12.5	8.6	8.6
<b>3</b>	Alpha III	27	13.5	8.8	7.83
<b>4</b>	Alpha IV	30	14.0	8.2	6.8
<b>5</b>	Alpha V	34	14.5	7.4	7.2
<b>6</b>	Alpha VI	45	12.0	7.2	7.0

### Progressive Deep Theta Training

Programs 7-12

	<b>Name</b>	<b>Time min</b>	<b>Start cycles/sec</b>	<b>Mid cycles/sec</b>	<b>Target cycles/sec</b>
<b>7</b>	Theta I	23	14.0	6.1	5.7
<b>8</b>	Theta II	30	13.0	5.5	8.1/5.1
<b>9</b>	Theta III	41	13.0	7.83	7.83/4.7
<b>10</b>	Theta IV	25	11.0	5.6	7.0/3.9
<b>11</b>	Theta V	33	10.0	4.5	4.1
<b>12</b>	Theta VI	60	11.0	5.6	7.0/3.6

### Deep Delta Wave Programs

Programs 13-15

	<b>Name</b>	<b>Time min</b>	<b>Start cycles/sec</b>	<b>Mid cycles/sec</b>	<b>Target cycles/sec</b>
<b>13</b>	Delta I	38	9.7	6.1	3.5
<b>14</b>	Delta II	55	8.9	6.0	3.0
<b>15</b>	Delta III	69	9.0	5.1	2.5

## Cognitive Stimulation Programs

Programs 16-18

	<b>Name</b>	<b>Time min</b>	<b>Start cycles/sec</b>	<b>Mid cycles/sec</b>	<b>Target cycles/sec</b>
<b>16</b>	Quick Boost	11	15	21	15
<b>17</b>	Focus	21	15.5	15.5	7.83
<b>18</b>	Concentration	36	12	18	8.0

# Circadian Rhythm Balance

## Our Internal Body Clock

Light is a powerful regulator of the human circadian system, the "body clock." The circadian rhythm is the internal 24 hour clock controlling physiological changes that occur with the natural light-dark cycle of the day.

The SCN or suprachiasmatic nucleus acts as the central processing system for our body clock. It is located in a part of the brain, the hypothalamus, just above the point where the optic nerves cross. Light reaches photoreceptors in the back of the eye, the retina, generating signals that travel along the optic nerve to several areas of the brain including the SCN, which is a non-visual part of the brain. In addition to sleep/wake cycle regulation, the SCN also plays a primary role in hormone secretion, and body temperature and blood pressure regulation among other daily functions.

In the presence of light, or the lack thereof, signals from the SCN travel to various parts of the brain, including the pineal gland. The pineal gland is responsible for controlling production of the hormone melatonin.

Melatonin is the sleep hormone. Melatonin levels normally increase in the absence of light. Exposure to specific light frequencies suppresses melatonin production for several hours. Melatonin makes us feel drowsy and plays a role in mood change. However, this only begins to describe the critical role Melatonin plays in regulating body function. We suggest further independent reading on its role.

## The Retina and our Body Clock

In just the past few years, scientists discovered a specialized set of cells in the retina that respond specifically to the action spectrum. Until this discovery, for about the last 200 years it was believed the retina only contained two types of specialized photoreceptors, the rods and cones.

We now know the retina contains three types of specialized photoreceptors that respond to the visible light spectrum. Visible light ranges from approximately 370 nm to 730 nm. These photoreceptors consist of the rods, cones and the recently discovered light/dark receptors.

The rods are the most numerous photoreceptors and the most sensitive to light, but are not sensitive to color. The retina contains approximately 110-125,000,000 rods. They are primarily responsible for dim light vision. The rods peak in the blue range and have almost no response to red light. Known as the scotopic photoreceptor system, the peak wavelength sensitivity is 507 nm, the green/blue-green color range.

The cones are color sensitive and divided primarily into red and green cones with a small percentage of blue cones. There are approximately 6.5 million cones in the retina divided into approximately 64% red sensitive cones, 32% green cones, and 2% blue cones. The blue cones are more sensitive to light than the red or green cones. The cones are responsible for high resolution vision known as photopic photoreceptor system. The cones have a peak wavelength sensitivity of 555 nm, the green spectrum.

The melanopsin receptors, also referred to as the light/dark photoreceptors, discovered just a few years ago are sensitive to the narrow blue wavelength action spectrum. These are independent of the classic rod and cone photoreceptors used for vision, and are not part of the visual system. They are active even with eyes closed and while asleep. It is theorized that blue sky exposure is how these ganglion cell photoreceptors evolved their specialized purpose.

These photoreceptors regulate circadian rhythms primarily via melatonin secretion. When exposed to this specific band, melatonin production is suppressed for several hours.



## The Melatonin Action Spectrum

A specific component of natural sunlight, short wavelength blue light in the narrow 446-483 nanometer (nm) wavelength is the melatonin action spectrum. Researchers recently discovered that this specific blue wavelength plays a major role in aligning and resetting the body clock through melatonin suppression. As this is also the wavelength of the clear, blue sky, it follows that exposure to the sky.

Approximately 460-470 nm is the peak light range for melatonin suppression. The MindSpa CalmBlue glasses are tuned within a few nanometers of the peak frequency range making them very effective for resetting the body clock.

## Circadian Rhythm Disorders

Circadian rhythm disorders are typically related to sudden and/or extreme changes in the relationship between exposure to environmental light and activity. For example, circadian rhythm disorders are known to be associated with change in geographical location (jet lag), aging, and night activity (night time shift workers).

Another common type of circadian rhythm disorder is seasonal affective disorder (SAD), which is characterized by symptoms such as lethargy and depression during the winter seasons when the duration of daylight is reduced. Due to decreased light exposure melatonin production continues during the waking hours.

Symptoms much like jet lag are common in people who work nights or who perform shift work. Because shift work schedules are at odds with powerful sleep-regulating cues like sunlight, they often become uncontrollably drowsy during work, and they may suffer insomnia or other problems when they try to sleep.

Shift workers have an increased risk of heart problems, digestive disturbances, and emotional and mental problems, all of which may be related to their sleeping problems. The number and severity of workplace accidents also tend to increase during the night shift. Recent evidence suggests it may be possible to reduce shift-related fatigue by exposure to specific frequencies of blue light in the workplace, minimizing shift changes, and taking scheduled naps.

Sunlight also causes other changes in the body, such as increases in serotonin production. Serotonin neurotransmitter production increases when a person is exposed to sunlight. Low levels of serotonin are associated with depression and mood swings. Along with using MindSpa, it is important to get as much light as possible every day for health, balance and general well-being. This becomes even more necessary in the winter when light levels are low.

## Using the Blue led Glasses for Circadian Balance

For general well being and balance use each morning shortly after waking up for a minimum of a one-half hour though 45 to 60 minutes is preferred. The glasses can be used with eyes open for this purpose and will also be effective with eyes closed. Time of year and location play an important role so if you are receiving low exposure to natural light use more often to maintain circadian balance.

For general sleep-related issues or if you have the “winter blues” use the blue led glasses every morning.

If you are falling asleep too early use in the late afternoon or early evening, use three to four hours before retiring to bed.

Continue use for at least one month and preferably three to four months for long term benefit. If suffering from medical or psychological conditions such as depression, we recommend consulting a medical professional before beginning use.

Light is the most powerful method for resetting the internal clock when travelling. For jet lag British Air offers an excellent jet lag calculator for calculating when you need light exposure and when you should avoid light. [www.britishairways.com](http://www.britishairways.com).

## Additional Advice for Care and Use

- Treat the MindSpa with the care it deserves and it will reward you with a virtually unlimited, trouble-free life.
- Store all components and this manual in the carrying case when not in use.
- Plug and unplug all connectors by the lead ends. Do not pull out the connectors by tugging on the wires; this may result in damage to the wire or unit and will void your manufacturer's limited warranty.
- Avoid using the MindSpa in unusually wet, dusty, or dirty environments.
- Do not leave MindSpa components exposed to direct sunlight for an extended period of time, or inside a closed automobile exposed to the sun on hot days.
- Remove the batteries when not using the unit for extended periods. Old batteries will leak resulting in damage to your unit.

## Frequently Asked Questions

Q.: What if the battery symbol is displayed and the unit stopped functioning properly, or the display is dim and the unit appears to be malfunctioning?

A.: This indicates the batteries have reached the end of their useful life. Replace your batteries with fresh AAA alkaline cells.

Q.: What if nothing happens when the unit is switched on?

A.: Was the protective tab removed prior to first-time use? If the unit does not function, remove the batteries and reinstall. Check to make sure the batteries are inserted properly. If the unit still does not function, try replacing the batteries with fresh AAA alkaline cells. This should resolve the issue in most cases.

Q.: What if the lights or the sound are not functioning properly?

A.: Check to make sure the jacks are fully plugged into the unit. On occasion, a new jack can be a little stiff at first use and require a little extra push. Also, check to make sure you have each accessory plugged into the correct jack. Please note that the end of the light jack is color coded.

Q.: What if there is a loud clicking sound in the earphones?

A.: Check to make certain the earphones is plugged into the correct jack. No damage will occur if you plug the glasses or earphones into the wrong jack.

Q.: Can I suffer harm with my eyes open during a program?

A.: There is no harm in opening your eyes while the lights are flickering. The total brightness relative to even a small flashlight is quite low and there is no measurable radiation output.

Q.: Why do my eyelids flicker with the lights?

A.: Your nervous system is responding to light levels that are too high. Reduce the brightness of the lights so that they are at a more comfortable setting for you.

Q.: What is the best way to sit or recline during a session?

A.: Place yourself in a comfortable position and allow yourself a few moments to settle in before beginning a program. Keep your legs and arms uncrossed; sitting in an open position will help to reduce muscle tension.

Q.: May I lie down and what happens if I fall asleep?

A.: You may assume any position you find comfortable. Maximum benefit is gained by remaining in a relaxed, yet aware state. Benefits are still gained when you fall into a light sleep state. Sometimes a deep state of relaxation feels like you are asleep. If you find you wake up at the end of a program, you were in a very deep, calm state rather than in a traditional sleep state. If you find that you fall asleep for an extended period of time after the end of the program this is an indication you may be in a sleep deprived state and you need to adjust your lifestyle.

Q.: What should I do if I accidentally get the unit wet?

A.: Do not try to turn the unit on. You should immediately remove the battery cover and batteries. Lightly shake the unit to remove any excess water. Next, turn your oven on its lowest setting so it is just warm. Allow to preheat. Remove the battery cover. Place the open unit on a towel placed in a baking dish. Allow one to two hours at just warm temperature to evaporate any water inside the unit. Optionally, place in the sun for a couple of hours. Assuming the unit did not short out when it got wet, it should be fine.

Q.: How can I learn more about any of the subjects covered here?

A.: Please visit our website, [www.avstim.com](http://www.avstim.com) or email your questions to us at [avs@avstim.com](mailto:avs@avstim.com).

# MindSpa Personal Development System

## LIMITED WARRANTY AND RELEASE FROM LIABILITY

Your MindSpa and accessories are warranted to be free of defects in material and workmanship for a period of one-year from date of purchase. Retain your sales receipt. Proof of purchase is required for all warranty repair or replacement.

Liability is limited solely to the repair or replacement of the product at the manufacturer's option. Manufacturer will repair or replace at its option without charge, other than transportation charges.

This warranty does not cover damage caused by accident, negligence or misuse.

If for any reason you believe your unit is faulty, please contact us for warranty repair or replacement.

Purchaser must contact manufacturer for return authorization before returning an article for any reason. Shipping address and instructions will be provided. If any article must be returned to the manufacturer, the purchaser must be sure to include name, address, telephone and a description of the problem with the article.

NUMBER TO CALL FOR RETURN INSTRUCTIONS: +1 415 459-7724 or contact [repair@avstim.com](mailto:repair@avstim.com)

**DISCLAIMER:** Except as provided above, the purchaser acknowledges that the article is purchased as is. The manufacturer and seller specifically disclaim all warranties, expressed or implied, including warranties of merchantability and of fitness for a particular purchase or use. The manufacturer and seller also assume no liability for any loss or damage arising from theories of tortious conduct, including negligence and strict conduct.

**RELEASE FROM LIABILITY:** The purchaser understands that:

- MindSpa technology is intended for personal development purposes only.
- No other claims are made for MindSpa.
- A/V Stim, LLC & NeuroTech, Inc. cannot predict the suitability of any article for any application because of the individual physical and emotional makeup of each user.
- Persons with a history of seizures, hallucinations, head injuries or other mental problems should not use MindSpa products without first consulting their physician.
- MindSpa should not be used by minors except with parental consent and monitoring.

The purchaser understands that A/V Stim, LLC & NeuroTech, Inc. or its agents or employees will not be held liable in any way for any occurrence of any nature in connection with the use of the MindSpa product by purchaser or any other person. In consideration of purchasing the product, the purchaser assumes all risks in connection with the use of the product, either by purchaser or by others. Purchaser understands and will assume all risks in connections of the use of the products by others.

**LIMITATION OF DAMAGES:** If, notwithstanding the foregoing, there should arise any question of liability on the part of the manufacturer or seller, the purchaser agrees that such liability will be limited to the cost of replacement of the products purchased.

**PURCHASER REPRESENTATION:** The purchaser represents that he/she is of legal age and is legally competent to understand and agree to the terms set forth herein, and that the terms are contractual and not mere recital. The purchaser has read or will fully read the product Use Guide before using any MindSpa article.

## Contact Information:

A/V Stim, LLC  
San Rafael, CA, USA  
Toll Free: 888-991-0368  
Tel: +1 415 459-7724  
E-mail: avs@avstim.com  
Website: www.avstim.com

## Instructions for repair or replacement

MindSpa is manufactured to the highest standards of quality. However, if there should be any manufacturing defects, we will repair or replace as quickly as possible. Please follow the instructions below to ensure rapid handling of your claim.

- Call or contact us at the number listed above or via email and request a return authorization number.
- Shipping charges are borne at the user's expense and are not refundable.

MindSpa Personal Development System® is the Registered Trademark of A/V Stim, LLC.

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Developed in the U.S.

#MDS-12p Manufactured in China for A/V Stim, LLC, and NTI

# Quick Start Guide

## MindSpa® Personal Development System

### *Programmable*

1. To activate MindSpa remove the protective tab from the battery compartment. The on/off switch is located on the left hand side of the unit.
2. Plug the Multi-Purpose glasses into the jack located on the left side of the unit.
3. Plug the earphones into the jack located on the upper right side of the unit. Be sure all plugs are pushed firmly into the jacks.
4. Choose a program by pressing the Program Up/Down buttons.
5. Start by adjusting the light intensity between to setting 3 - 5 and volume between settings 1 - 3.
6. Sit or recline in a comfortable position where you will remain undisturbed.
7. Press the Start/Stop/Pause button to begin. Close your eyes. The program begins after a ten second countdown. As you begin your program take several slow, deep breathes into your diaphragm to help you shift into a calm and relaxed state. Release any muscle tension you may feel.
8. When the program begins, you may readjust volume and lights to a comfortable level.

For optimal results we encourage regular use minimum several times per week.

Progressive Relaxation Alpha Training	Programs 1-6
Progressive Deep Theta Training	Programs 7-12
Deep Delta Wave Programs	Programs 13-15
Cognitive Stimulation Programs	Programs 16-18