DAVID PREMIER

OPERATOR'S MANUAL

mindalive inc

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INTRODUCTION

The DAVID Premier is one of the most advanced brain stimulation devices available today. It uses innovative technology to ensure a safe and effective Audio-Visual Entrainment (AVE) and Cranio-Electro Stimulation (CES) experiences. Extra kits for Microcurrent Electro Therapy (MET) and Transcranial DC Stimulation (tDCS) are available for purchase.

The portability of the DAVID Premier lends itself to easy travel (airport x-ray machines will not harm the DAVID Premier).

The DAVID Premier incorporates advanced dual-hemisphere AVE as well as Randomized AVE (RAVE). AVE, AVS and RAVE span the frequency band from ganzfeld all the way to gamma. The Spectrum Eyeset that comes with the Premier, can also be operated using a USB port on the computer with a Windows-based PC App. The Spectrum Eyeset can generate 20,000 shades of colors (with DAVID Studio purchase), which may be calibrated to exactly match your computer or light-therapy screens for color-therapy.

DAVID Premier is fully programmable using the DAVID Studio on your Windows 10/11 computer. You can fully program your Premier to pair any session with an audio file, add a hypnosis track, music, or affirmations to your unique session.

FEATURES

- o 49 AVE and RAVE sessions
- o 25 CES sessions
- o 9 50% duty CES sessions
- o 3 MET sessions (with additional purchase of MET kit)
- o 25 tDCS sessions (with additional purchase of tDCS kit)
- o Long-life eternal lithium-ion battery (one charge can provide 40 hours of electrostimulation (electrostim) or 20 hours AVE).
- o tDCS capability (2.5 milliamps).
- o Ability to change settings during a LIVE session.
- o You can add soothing music, or nature sounds such as ocean waves, birds, wind chimes, or thunderstorm sounds to your session.
- o The Spectrum Eyeset has more capabilities than any eyeset made. With over 20,000 colors and a variety of waveforms. The Spectrum Eyeset may also be played directly from a USB port on a Windows computer. You can also use it with your Windows-10 or 11-based PC on the DAVID Breathe and DAVID Live free PC apps.
- o Interactive digital display
- o Built-in audio-player with several sound effects
- o Manual mode (LIVE Session feature from the Windows store) so you can design your own sessions.
- o Ability to edit the session preferences/default values such as tone type, heartbeat on/off, left, and right color and electro-stim mode.
- o Patented CES technique on randomization and gentler stimulation.
- o CES normally follows AVE frequency, but 100 Hz may be selected at anytime for enhanced serotonin production. However, with DAVID Studio, CES can be programmed anywhere from 0.1 to 200 Hz.

- Premier Unit
- Spectrum Eyeset
- Spectrum Eyeset Cable
- Eyeset Case
- Headphones
- CES Earclip Cable
- Carry Bag
- Quick Guide
- USB 2.0 Micro-B Charging Cable
- MicroSD Card
- USB Wall Plugin (optional)

ADDITIONAL ACCESSORIES

DAVID Studio
Microcurrent Electro Therapy (MET) Kit
Microcurrent Electro Therapy (MET)Probe Kit
transcranial DC Stimulation (tDCS) Kit

FIRMWARE AND SOFTWARE

FIRMWARE

Firmware is the software that is programmed into the Spectrum and Premier's computers. From time to time, we upgrade the firmware. You can get firmware updates by installing the LIVE app on your Windows™ computer. Open the LIVE app and plug your Spectrum into the USB port. You will automatically see your Spectrum Eyeset show up in the window along with the firmware version on the right-hand side. Select your Spectrum by clicking a checkmark in the box. Right-click over the Spectrum name. You are given 3 options. Select "Upgrade Firmware" and the firmware will upgrade automatically. Notice that there is a new firmware version shown on the right-hand side. Follow this same procedure for updating your Premiere.

SESSION SOFTWARE

The sessions are contained in the micro-SD card that is plugged into your Premier. These sessions have been designed on a Windows app called the DAVID Studio. You can buy DAVID Studio from the Windows store to make your own sessions and download them onto the micro-SD card.

AUDIO FILES

The Premier has a selection of audio files, which may be played alongside any session for background audio. These sounds include white, pink or brown noise, ocean waves, birds chirping, chimes, rain, and more. Some sessions have a specific audio file that is associated with that session. You can load your own audio wave files (not mp3 or compressed types) onto the micro-SD card and pair them with your session. The Premier menus allow for easy pairing of an audio file to a session.

PANEL OVERVIEW
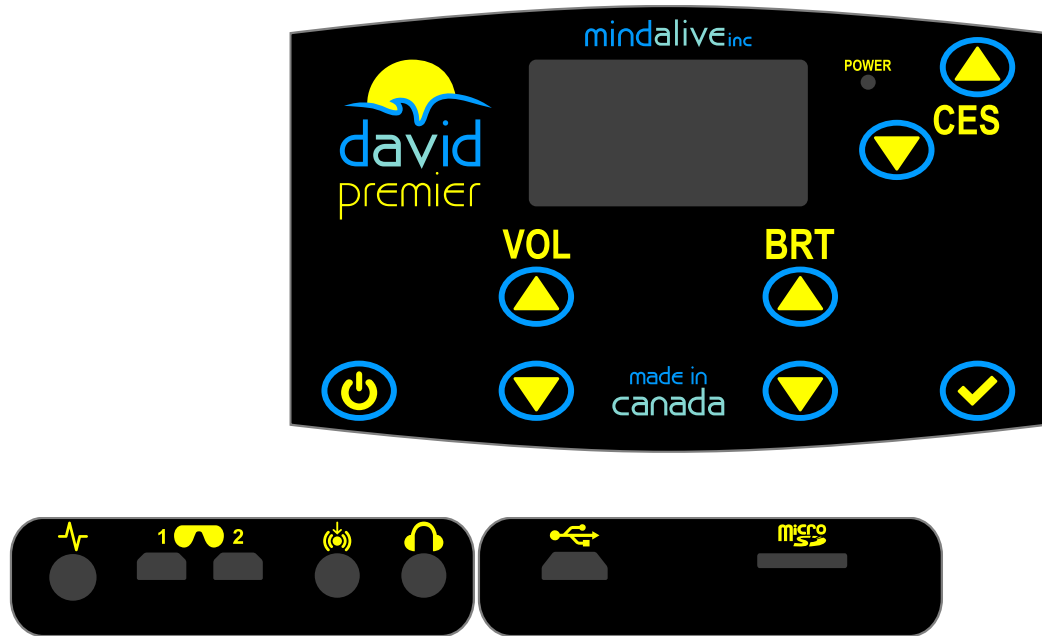
Power LED

Before you begin a session, check the battery level on the screen.

The Power LED has three colors:

POWER ● (green)	Solid Green: fully charged.
POWER ● (yellow)	Flashing Yellow: While your Premier is charging, the power light will flash yellow. It will become green once fully charged. While using the Premier, this will become solid yellow when the battery gets below 10% battery power.
POWER ● (red)	Solid Red: Dead battery. The screen will say to charge the battery. Flashing Red: Error Indicator. If there is an error such as the microSD card being removed during operation or the CES ear clip cable becoming disconnected. The display will indicate the error, and the Premier will soft-off. Then the Power LED will flash red. For more info, see *Appendix A: Troubleshooting*.

PANEL BUTTONS

⏻	Press and hold to turn the device on or off. Press to perform the action shown in the bottom-left corner of the screen.
✓	Press and hold to perform a special action on the current screen. Press to perform the action shown in the bottom-right corner of the screen.
▲ VOL ▼	Press to adjust the audio volume during AVE sessions.
▲ BRT ▼	Press to adjust the eyeset brightness during AVE sessions.
▲ CES ▼	Press to adjust the electro-stim intensity during CES or MET sessions.

INPUTS: JACKS AND PORTS

⩗	2.35 mm electrostim cable port
👓	1: Primary Spectrum™ Eyeset port. 2: Secondary Spectrum™ Eyeset port *NOTE: The second eyeset port doesn't support Auto-Save for brightness.*
(◉)	3.5 mm stereo audio input jack
🎧	3.5 mm stereo headphone jack
⟻	USB 2.0 micro-B port
microSD	microSD memory card slot

LED DISPLAY

HOME MENU

When you power up your Premier for the first time, you may choose from Session Library, Live Session or System Settings. Once you have selected a session, Recently Played Sessions will be shown.

- o   Press ⬆ or ⬇ to scroll between menu options.
- o   Press ✔ to select a menu option.

★ **Recently Played Sessions**	Opens the *Session Library* screen with a list of up to 10 recently played sessions.
🗃 **Session Library**	Opens the *Session Library* screen with a list of session categories.
⚙ **Live Session** (Advanced Mode)	LIVE allows manual control of a session in real time. You can control all aspects of a session, including frequency, eyeset color, CES frequency, tones and more. LIVE only appears while in Advanced Mode, which may be activated in System Settings by changing Interface Mode Basic to Advance.
⚙ **System Settings**	Opens the *System Settings* screen. Here, there are a variety of settings that may be made, including the Time Clock. Advanced Mode turns on Live Session mode for manual operation, which a therapist may wish to use. Most users will prefer to use only the factory sessions.

SESSION SCREEN

All of your session information is shown on the display. Below is an explanation of the icons:

1) AVE Relaxation – Shows the type of stimulation (AVE, RAVE, CES, MET, tDCS) and category. In this example, we have selected AVE stimulation in the Relaxation category. Push and hold the CES for CES stimulation.

2) ▭ – Shows the battery power level. In this example, four bars show the battery is fully charged.

3) Alpha Relaxer 30:00 – Indicates the name of the session with a running time of 30 minutes. The time counts down to 0:00 as the session progresses.

4) AVE and CES- Shows both AVE and CES stimulation have been selected for this session.

5) ♫ - Shows that an audio file has been selected for this session. Before you start the session, you may select from several background sounds, such as babbling brook, birds, brown noise, ocean waves, pink noise, thunderstorm, white noise, wind chimes located on the microSD card. There can also be a full-length custom audio track with the session. This could be relaxing music, a hypnotic induction, etc. You may add your own audio (wave files only) to the Audio folder of your microSD card.

6) – The symbol for a relaxation session. See symbols for all categories on page 12 for the complete list.

7) Long vertical bar with the box on right hand side of screen - The box moves down the bar as the session progresses.

8) Back - A short press of the power button will take you out of your current menu to the home screen.

9) ✓⇕ Start - There are two functions here: The ✓⇕ means that pressing and holding the ✓ button will take you to inner functions such as sub-menus, which you can edit. Otherwise, a short press of the ✓ button will start the session. The word Start can also be Edit or other functions which will occur with a short press of the ✓ button. Look to see what the function will be before pressing the ✓ button.

Button Actions

- Press to select a session type/category or start the selected session.

- Press and hold to open the *Session Preferences* screen for the selected session.

- Press to go back to the previous screen.

Button Actions

- Press or to scroll between menu options.

- Press to select a session type/category or start the selected session.

- Press and hold to open the *Session Preferences* screen for the selected session.

- Short press to go back to the previous screen.

SELECTING A SESSION

This table shows the various types of stimulation on a fully loaded Premier.

AVE	Audio-Visual Entrainment.
CES	Cranio-Electro Stimulation (short pulse)
50% CES	Cranio-Electro Stimulation with 50% duty cycle (long pulse). This is a much stronger form of standard CES. Some experience vertigo with this type of stimulation, so we recommend using carefully.
MET	Microcurrent Electro Therapy. This is used to treat muscle, tendon, and soft tissue injuries.
tDCS	Transcranial DC Stimulation.

AVE AND CES SESSION CATEGORIES

AVE	
Relaxation	Sessions to relax and calm you. These are in the normal alpha brain wave band from 9 Hz - 12 Hz.
Meditation	Sessions to help you reach deep meditation. These are in the 5 Hz – 8 Hz range. They can take you very deep. Give yourself time to "wake up" before getting up.
Sleep	Sessions to help you improve your sleep. There are a variety of sessions – starting at SMR or starting in alpha and ending in delta to sessions that start in delta. Sessions that start in delta were found to be quite effective for those with fibromyalgia (however, for typical population, they aren't very effective).
Body Booster	Sessions to relieve physical discomfort such as aches and pains.
Mood Booster	Sessions to improve your mood and boost the immune system. These are alpha/beta sessions for the alpha asymmetry type of depression.
Brain Booster	Sessions to help you focus and concentrate. Also to improve memory. These are SMR/beta type sessions, similar to how neurofeedback is done to boost cognition.

Performance	Sessions to improve performance of all kinds.
Energize	Sessions to wake you up and stimulate you for an energetic morning. These are in the 19 - 23 Hz range.
Gamma	Sessions help increase myelin, cerebral spinal fluid, and amyloid plaques. These sessions are used to help with cognition and brain function all around. They have a frequency between 39 and 41 Hz.
Ganzfeld	Sessions with constant light and sound on for passive altered states of consciousness. A few of these also change color and audio pitch, every few minutes, for use in chakra balancing.
CES	
Sub-Delta	Sessions with a frequency below 1 Hz. These have been shown to help normalize hypothalamic issues and might play a role in pumping cerebral spinal fluid.
Delta	Sessions with a frequency between 1 and 4 Hz. These help to sustain sleep.
Theta	Sessions with a frequency between 4 and 8 Hz. These are useful for creativity and may also help to sustain sleep.
Alpha	Sessions with a frequency between 8 and 12 Hz.
β1 Beta 1	Sessions with a frequency between 12 and 15 Hz.
β2 Beta 2	Sessions with a frequency between 15 and 24 Hz.
β3 Beta 3	Sessions with a frequency between 24 and 35 Hz.
Gamma	Sessions with a frequency between 35 and 50 Hz.
HF High Frequency	Sessions with a frequency above 50 Hz.
Ganzfeld	Sessions with no frequency as the eyeset lights and audio tones stay on all the time.
Research	Sessions intended for research purposes.
Custom	Custom (separate purchase) or user-designed sessions (with DAVID Studio)

All of the AVE sessions (except Ganzfeld) also include CES to assist with relaxation by increasing endorphins and serotonin. After 20 years of observation, we have concluded that mild randomization (±1Hz) is more effective than a fixed frequency which we call RAVE (Randomized Audio-Visual Entrainment). Most sessions have been programmed as RAVE sessions. Most sessions include heart-rate variability (HRV) where the heartbeat is set at 24 beats per minute. If you inhale for two beats and exhale for two beats (four beats total per breath, you will pace your breathing at six breaths per minute, which is the breath rate that HRV is based on. The Premier does not measure HRV. Note: Sessions are listed alphabetically within each category.

AVE – Relaxation

If you are new to AVE, the Relaxation group of sessions is a good starting point. Wait until awake for a couple of hours before using each day.

Alpha Relaxer – 30 min – 10 Hz

Healthy alpha is 10 Hz. Most disorders have alpha slowing. This session re-establishes the natural alpha rhythm. Good for beginners. (RAVE & HRV)

Coffee Break – 15 min – 10 Hz

Great for a little alpha rest during your coffee or lunch break. Comes with a pre-set audio file of ocean waves. (RAVE & HRV)

Dental & Massage – 120 min – 8.4 Hz

This session is slow alpha to help you stay relaxed for dental, massage, physiotherapy, and other appointments that can cause anxiety. (RAVE & HRV)

Extended Alpha – 180 min – 10 Hz

This session is an extended alpha session with preset audio file of birds used for deep long relaxation. (RAVE & HRV)

Wise Guy Alpha - 30 min – 10.6 Hz

It has been shown that people with fast-running alpha waves have a higher-than-average IQ. This is a faster running alpha for quickness of observational processing. (RAVE & HRV)

AVE – Meditation

Meditation sessions are a deeper form of relaxation. They can put a person into a very deep state of relaxation. These are best used after being awake for a few hours and preferably after lunch. They go well with a background sound such as ocean waves, birds, or thunderstorms. Avoid the use of these sessions in the evening before bed, as they can be too relaxing and might interfere with being able to fall asleep.

Paradise - 40 min – 6.5 Hz

Developed in the 1990s, this is a favourite for those wanting a deep, relaxed state of mind. A gentle slide down from alpha to theta. Extroverts with low anxiety produce high levels of this theta frequency. (RAVE & HRV)

Short Schumann - 20 min – 7.8 Hz

For a quick, thorough afternoon meditation for those on the go. Calms "hyper/chattery" minds. (RAVE & HRV)

Slow Body Down – 24:10 min – RAVE: 12 - 6.5 Hz   CES: 30 – 6.5 Hz   HB: 30 – 20 bpm

Uses gently slowing AVE frequencies, slowing CES and a slowing heartbeat to gently calm an anxious mind down into deep relaxation. This is especially good for acute or situational anxiety. Includes music file that gradually slows as session progresses. (RAVE)

Theta - 40 min – 5.5 Hz

Use for creative visualization. This can put a person into a dreamy mind state. Can also be used for sleep. (RAVE & HRV)

AVE – Sleep 🌙

There are many things that interfere with sleep. For example, worrying, various infections, vitamin deficiencies all turn up the cortisol in the night and interfere with sleep. Be sure to be taking 2000 IU/day of oil-based vitamin D and a vitamin B Complex along with good nutrition. Get appropriate amounts of exercise. Sleep sessions work best for sleep interference from anxiety, stress and over-arousal. There are two main types of sleep sessions. The slower ones that begin in alpha and theta are for those people who have a racy mind and tense body. The SMR ones are for those who are fairly relaxed physically but have a busy mind. All have HRV breathing using the heartbeat. Remember to breathe in for two beats and out for two beats. As you become more relaxed, try to breath in for one to two beats and out for three to four beats.

Alpha & Theta – 45 min – L 10 Hz/R 6 Hz

This session can really help to break up distressing thoughts that are interfering with sleep. Creates a dreamy state of mind as you drift into sleep. (RAVE & HRV)

Delta - 50 min – 3.5 Hz

The sleep process starts with alpha and then we drift down to delta. This is generally not a good session for most people to use for falling to sleep. However, it is particularly good to help with sleep for those with fibromyalgia and chronic fatigue. (HRV)

Meditate to Sleep – 50 min – 8 Hz to 3 Hz

Meditate, visualize, and think soothing thoughts during the first half (8 Hz). Fall asleep during the second half (3 Hz). (RAVE & HRV)

Schumann for Sleep – 60 min – 7.8 Hz

For effective deep meditation and to improve the onset of sleep. Calms "hyper-chattery" minds. Ideal for those with insomnia who have a busy mind and tense body. Comes with a pre-set audio file ocean waves. (RAVE & HRV)

SMR for Sleep – 50 min – 14 Hz

Use to improve sleep for those who have insomnia due to a "racing" mind but relaxed body. Simply breath with the heartbeat (two beats in and two beats out) until you begin drifting. Then let yourself fall asleep. (RAVE & HRV)

AVE - Body Booster 大

Sub-Delta - 25 min – 0.5 – 1 Hz

Mildly dissociating. Calms the hypothalamus. Beneficial for some with fibromyalgia and hypertension and other issues involving the hypothalamus. (RAVE & HRV)

AVE – Mood Booster ☺

The left frontal lobe is in charge of happiness, while the right side is fear based. With long term stress, a person can fall into a constant low mood or the "blues." On an EEG, this appears as more alpha waves are found over the left side than on the right, leaving fear and negativity in control. These sessions are designed to pick up your mood.

Mood Booster 1 – 30 min – L 10 Hz/R 18 Hz

Settles down negative emotions from the right brain while stimulating positive emotions in the left brain. Use to help with alpha-asymmetry depression. This stimulates with alpha on the left fields for the right brain and beta on the right fields for the left brain. (RAVE & HRV)

Mood Booster 2 – 45 mins – 10 Hz for 15 minutes then L 10 Hz/R 10 - 20 Hz

Settles down negative emotions from the right brain while stimulating the left brain to rebalance alpha asymmetry. This session has an alpha front end to reduce anxiety and enhance relaxation. (RAVE & HRV)

AVE - Brain Booster ☀

It is well known in the neurofeedback community that the best mental function comes from good beta waves within the left frontal lobes and ample brain waves in the SMR range (14 - 15 Hz) in the frontal lobes. These sessions do just that, but with various techniques to suit a variety of people. The Brain Booster sessions are best used upon or shortly after awakening.

ADHD from Study – 30 min - Alpha to SMR/Beta to Alpha (3 cycles) L 10 Hz to 13.5-14 Hz/R 10 Hz to 18 - 20 Hz

This session has rapid transitions for mental stimulation to help keep the user "engaged" in the session. These are mostly used with ADHD children. Used in the study published in the Journal of Neurotherapy. Cycles between 10 Hz (Alpha) to 13.5-14 Hz on the left (SMR) and 18-20 Hz on the right (Beta). (RAVE & HRV)

Brain Booster - Left - 30 min - 10 Hz to L 6 and R 20 Hz

This session is designed to boost left brain activity such as basic math, logic and language without influencing right brain activity. (RAVE & HRV)

Brain Booster - Right - 30 min –10 Hz to R 6 and L 20 Hz

This session is designed to boost right brain activity while calming left brain activity. Its primary focus is to encourage creativity and global thinking. (RAVE & HRV)

Brain Booster - Whole – 30 min – Alpha to SMR/Beta to Alpha (3 cycles) L 10 Hz to 13.5-14 Hz/R 10 Hz to 18 - 20 Hz

Use to improve mental functioning and memory. Similar to the ADHD session but with gentler transitions that most adults prefer. It is based on Budzynski's study with seniors and Wuchrer's study with college students. Useful for seniors, dementia, college students for learning, concussion, and those with ADHD. (RAVE & HRV)

Mental Flexibility - 25 min – 10 Hz to 7.8 Hz to 14 Hz to 4 Hz to 20 Hz to 10 Hz

To loosen up a stuck mind. May also be used for fibromyalgia. This is loosely based on an EEG-assisted technique. This session begins at 10 Hz and then ramps back and forth, first slowing down a bit and then speeding up some, then slowing even more, then speeding back up. The slowest speed is 4 Hz and the fastest is 20 Hz. (HRV)

SMR for Reading - 30 min – 14 Hz

Use before reading. First, close your eyes and wait 5 minutes before reading or attending to a task. Or use with the Spectrum Viewhole Eyesets (sold separately) to improve attention and alertness while reading. (HRV)

SMR-Beta - 25 min – L 13.5 Hz/R 18 Hz

An assertive SMR/Beta session that helps to focus mental functioning and memory. Used for ADHD, boosting grades in college students, and for seniors with cognitive decline and concussion. This is RAVE for the first 10 minutes and then AVE thereafter.

AVE – Performance 🏈

Performance sessions can improve your mental game (focus and concentration) as also seen in the Brain Booster sessions. Performance sessions may also be designed for emotional and game-playing visualizations for improved performance. Performance sessions may also be used for relaxing before or after an event or game.

Golf Pre-Game – 25:49 min – 10 Hz

Use this session both in pre-season and during the season to maintain a calm mental zone while playing golf and watch your game improve. During the season, use this session one to two hours before your game. Comes with a preset audio file for improving golf performance. (RAVE)

Skill & Sports – 25 min – 8 Hz to 20 Hz

Use this session to develop any skill or improve performance. Visualize feeling your very best during the first half (alpha) of the session. Draw from your previous best performances. At 14 minutes into the session, the stimulation will change dramatically and speed up. At this time, visualize executing your perfect performance for the event coming up during the second half (beta) of the session. (EX-RAY visualization) (RAVE & HRV)

AVE – Energize ⚡

The Energize sessions should only be used upon awakening. Many people struggle with excessive alpha brain waves or brain fog in the morning. The Energizer sessions will help clear the fog.

Sharpen the Mind 1 - 20 min – 19 Hz to 21 Hz

A great way to get going in the morning without caffeine. This session helps reduce ADHD and Seasonal Affective Disorder (SAD) symptoms. Use faster frequencies with caution, as they may increase temporary anxiety in some people. (RAVE & HRV)

Sharpen the Mind 2 - 20 min – 20 Hz to 23 Hz

Like Sharpen the Mind 1 but with a higher target frequency. May give a more energizing or intense feeling. Use to really get going in the morning without coffee. Use faster frequencies with caution. Some people find this session a bit too intense. (RAVE & HRV)

AVE – Gamma Ɣ

There are several studies using gamma frequencies for dementia and Alzheimer's. Gamma was used in the Iaccarino (MIT) study on reducing amyloid plaques in mice and in the Singer study for stimulating non-inflammatory cytokines.

Gamma 38 – 42 Hz - 40 min – 38 Hz to 42 Hz

This is mildly randomized per our belief that mild randomization is better than a fixed frequency. (RAVE & HRV)

Pure Gamma – 40 min – 40 Hz

There are several studies using gamma for dementia and Alzheimer's. This format was used in the Iaccarino (MIT) study on reducing amyloid plaques in mice. (HRV)

SMR-Gamma – 30 min – 13Hz - 40 Hz - 14 – 42 – 14Hz

SMR is the $1/3^{rd}$ harmonic of gamma. Some users have reported beneficial boosts in cognition.

AVE – Ganzfeld 👁

Ganzfeld is a steady color on (does not have a flashing frequency). Chakra healing comprises of the seven chakras, each of which has an associated color and note on the musical scale. The tones that can be heard are (C trough B on the 3rd octave on a piano) and used during chakra meditation. The Ganzfeld sessions are fixed colors with a constant tone. Ganzfeld is used for passive meditation.

Blue - 60 min – 0 Hz

Blue is believed to increase lower alpha in the 8 to 10 Hz brain wave activity. Includes ocean waves audio with standard tone.

Chakra - Red to Violet - 60 min – 0 Hz

Starts at red and ends up at violet. Includes the chakra tones from the middle C note to B note. Great for tuning the chakras. Includes ocean waves audio with chakra-based tones.

Green - 60 min – 0 Hz

Green is believed to increase upper alpha in the 10 to 12 Hz brain wave activity. Includes ocean waves audio with standard tone.

Orange – 60 min - 0 Hz

Orange is believed to increase 15 to 18 Hz brain wave activity. Includes ocean waves audio with standard tone.

Rainbow Red Violet – 60 min – 0 Hz

Starts at red and ends up at violet. Great for tuning the chakras. Includes ocean waves audio with standard tone.

Rainbow Violet Red – 60 min – 0 Hz

Starts at violet and ends up at red. Great for tuning the chakras. Includes ocean waves audio with standard tone.

Red – 60 min – 0 Hz

Red is believed to increase 18 to 22 Hz brain wave activity. Includes ocean waves audio with standard tone.

Violet – 60 min – 0 Hz

Violet is believed to increase theta in the 5 to 7 Hz brain wave band. Includes ocean waves audio with standard tone.

Yellow – 60 min – 0 Hz

Yellow is believed to increase 12 to 15 Hz sensory motor rhythm (SMR) brain wave activity. Includes ocean waves audio with standard tone.

AVE Custom ⬤

Eye Movement Desensitization and Restabilization (EMDR) is a technique used by mental health professionals to treat trauma. EMDR enables people to heal from the symptoms and emotional distress that are the result of disturbing life experiences. A key part of EMDR involves moving the eyes left and right throughout a desensitization process during therapy. Follow the lights with your eyes. Should be used with a qualified therapist.

EMDR – 60 min - 0.2 Hz
Uses a 5-second cycle (looking left for 2.5 seconds and then right for 2.5 seconds). Rose color in eyeset.

EMDR 0.3 Hz – 60 min – 0.3 Hz
Uses a 3.3-second cycle (looking left for 1.65 seconds and then right for 1.65 seconds). Rose color in eyeset.

EMDR – 60 min - 0.4 Hz
Uses a 2.5-second cycle (looking left for 1.25 seconds and then right for 1.25 seconds). Rose color in eyeset.

EMDR – 60 min - 0.5 Hz
Uses a 2-second cycle (looking left for 1 second and then right for 1 second). Rose color in eyeset.

AVE - Research ⚗
Research Sessions are based on emerging and impressive physiological research, but without significant clinical studies.

Cerebral Spinal Fluid (CSF) circulation boosting sessions are based on research by Williams et al 2023, where they found that by turning on/off visual stimulation at 30 second cycles, there is an increase in cerebral blood flow. In order to balance intracranial pressure, the brain pushes CSF out. But when the stimulation stops, the intracranial blood volume reduces, and the brain pulls in CSF. About 10% whole-brain CSF is exchanged on each 30 second cycle. Eight, 12 and 40 Hz were found to produce more pumping than other frequencies.

CSF – Circulate – 22 min - 12 Hz
CSF – Circulate – 22 min - 40 Hz
CSF - Circulate – 22 min - 8 Hz

The research pain sessions are based on studies by Han 2003 where he found that 2 Hz CES produced large increases in endorphins while 100 Hz produced large increases in dynorphins. Moderate increases in both neurotransmitters happened about at 14 Hz. Two Hz and 100 Hz frequencies needed to be changed every few seconds to be effective for pain reduction. These sessions have fast cycles of 2 and 14 Hz, followed by 14 Hz for 10 seconds. The complete cycle repeats every 30 seconds.

Pain & Mood Booster – 30 min – Left 10 Hz/Right 20 Hz
CES & RAVE for pain and boosting mood. This is the endorphin/dynorphin process as described above with added Mood Booster for increasing mood and happiness.

Pain & Relaxation – 30 min – 10 Hz
CES & RAVE for pain and relaxation. This is the endorphin/dynorphin process as described above with added Healthy Alpha RAVE.

CES SESSION DESCRIPTIONS (WARNING – DO NOT USE CES IF YOU HAVE A PACEMAKER)

Cranio-Electro Stimulation (CES) was developed in Russia in the 1950s and was known as electrosleep. Since that time, over 200 studies on depression, anxiety, pain, substance abuse, and more have been completed. Simply wet your earlobes well, put the electrodes on and bring up the stimulus. The 50% duty-cycle means that the stimulus is on for half of the time at all frequencies. This is a much stronger stimulus than a standard pulse. The effect is most pronounced in delta and sub-delta frequencies. Some people find this makes them nauseous, while others love the effect. Most Gamma CES research has been using a fixed frequency at 40 Hz. However, customer feedback has been that mildly randomized gamma stimulation is preferred and so we have included that format.

50% CES Delta – 180 min - 0.5 – 3 Hz
50% CES Delta – 20 min - 0.5 – 3 Hz
50% CES Delta - 45 min - 0.5 – 3 Hz
50% CES Sub-Delta – 180 min - 0.5 – 0.9 Hz
50% CES Sub-Delta – 20 min - 0.5 – 0.9 Hz
50% CES Sub-Delta – 45 min - 0.5 – 0.9 Hz
50% CES Theta – 180 min - 4 – 7 Hz
50 % CES Theta – 20 min - 4 – 7 Hz
50% CES Theta – 45 min - 4 – 7 Hz

CES Delta – 20 min - 2.5 – 5 Hz
CES Delta – 45 min - 2.5 – 5 Hz
CES Delta – 180 min - 2.5 – 5 Hz
CES Theta – 20 min - 6 – 8 Hz
CES Theta – 45 min - 6 – 8 Hz
CES Theta – 180 min - 6 – 8 Hz
CES Alpha – 20 min - 9 – 11 Hz
CES Alpha – 45 min - 9 – 11 Hz
CES Alpha – 180 min - 9 – 11 Hz
CES Beta 1 – 20 min - 12 – 15 Hz
CES Beta 1 – 45 min - 12 – 15 Hz
CEs Beta 1 – 180 min - 12 – 15 Hz

CES Beta 2 – 20 min - 18 – 22 Hz
CES Beta 2 – 45 min - 18 – 22 Hz
CES Beta 2 – 180 min - 18 – 22 Hz
CES Gamma – 20 min - Fixed 40 Hz
CES Gamma – 45 min - Fixed 40 Hz
CES Gamma – 180 min - Fixed 40 Hz
CES Gamma – 20 min – 39 - 41 Hz
CES Gamma – 45 min – 39 - 41 Hz
CES Gamma – 180 min – 39 - 41 Hz
CES High Frequency – 20 min - 100 Hz
CES High Frequency – 450 min - 100 Hz
CES High Frequency – 180 min - 100 Hz
CES Research – Pain – Acupuncture protocol – 30 min - 2 Hz, 100 Hz, 14 Hz
This session stimulates at 2 Hz for 3 seconds, 100 Hz for 3 seconds, alternating 3 times, then 14 Hz for 12 seconds. Then the cycle repeats. Based on Ji-Sheng Han's research of 2003 and mini-review in 2004. Acupuncture: neuropeptide release produced by electrical stimulation of different frequencies. Ji-Sheng Han TRENDS in Neurosciences Vol. 26 No. 1 January 2003.

MET Session Descriptions (Warning – do not use MET if you have a pacemaker)

MET Delta - 180 min - 0.5 – 3 Hz
MET Delta – 20 min - 0.5 – 3 Hz
MET Delta – 45 min - 0.5 – 3 Hz

tDCS Session Descriptions (Warning – do not use tDCS if you have a pacemaker)

tDCS sessions are to be used in predetermined places on the head as determined either by an EEG or qEEG or by symptoms. Electrode placement and the chosen intensity are best determined by a competent therapist.

For additional information on tDCS, refer to our tDCS article:
https://cdn.shopify.com/s/files/1/0014/4349/6023/files/tDCS_Neuroconnections_article.pdf?14874224366634816077 and video: https://youtu.be/rSwDETGZgy0

tDCS 0.10 mA
tDCS 0.20 mA
tDCS 0.30 mA
tDCS 0.40 mA
tDCS 0.50 mA
tDCS 0.60 mA
tDCS 0.70 mA
tDCS 0.80 mA
tDCS 0.90 mA
tDCS 1.00 mA
tDCS 1.10 mA
tDCS 1.20 mA
tDCS 1.30 mA
tDCS 1.40 mA
tDCS 1.50 mA
tDCS 1.60 mA

tDCS 1.70 mA
tDCS 1.80 mA
tDCS 1.90 mA
tDCS 2.00 mA
tDCS 2.10 mA
tDCS 2.20 mA
tDCS 2.30 mA
tDCS 2.40 mA
tDCS 2.50 mA

EYESET COLORS

Eyeset colors coincide with the research done by Marvin Sams and Nancy White, where they found that colors influence brain waves. The colors in many of the sessions will change as the frequency changes. The applications of the colors shown in the color wheel are generalities, based on client observations. The colors may be changed in the Session Settings.
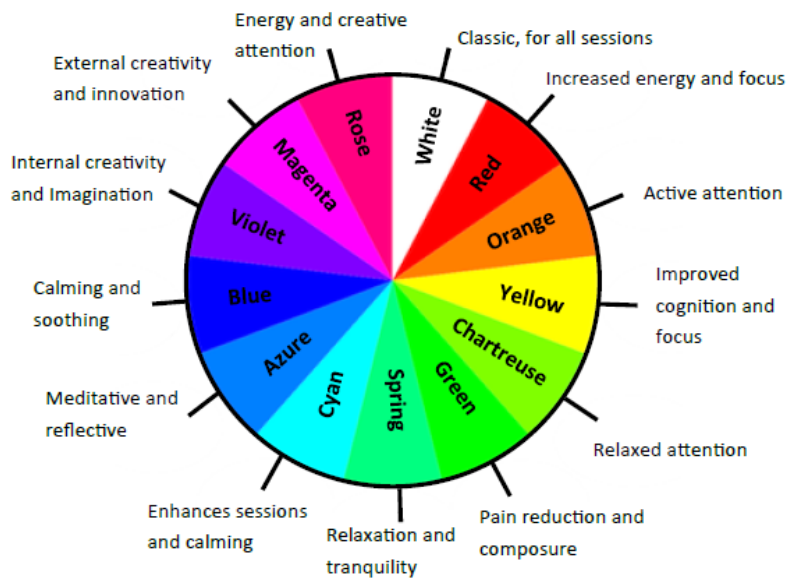
SESSION SETTINGS SCREENS

- Press ▲ or ▼ to adjust the volume, brightness, and electrostim intensity. There are 20 different volume and light intensity settings.
- Press ⏻ to end the session with soft-off; press again to stop immediately.

SESSION PREFERENCES

- AVE: Press and hold ✔ to open the *Session Preferences* screen for the current session.
- CES/MET: Press and hold ✔ to save the initial intensity for the current session.

OPERATING A LIVE SESSION

When in Advanced Mode, LIVE will appear in the Main Menu. If you go into LIVE, you will have real-time controls over many of the Premier functions.

- Press and hold ✔ to open the *Live Session Settings* screen during a live session.

SESSION DATA VIEWS

- Press ✔ to cycle between session data views. (Advanced Mode)

(Session Category Icon)	Displays the session progress: • Elapsed time (H:MM:SS) • Remaining time (H:MM:SS)
Hz (Advanced Mode)	Displays the stimulation frequencies for AVE and electrostim: • Left frequency (Hz) • Right frequency (Hz)
(Advanced Mode)	Displays the AVE audio stim data: • Tone type (Pulse, Monaural, Binaural, Off) • Pitch (Hz) • Heartbeat (BPM)
(Advanced Mode)	Displays the AVE visual stim data: • Light shape (Classic, Sine, Triangle, Off) • Left color (RGB) • Right color (RGB)
(Advanced Mode)	Displays the electrostim data: • Voltage (V) • Current (mA) • Resistance (kΩ) • Pulse width (ms)

SESSION PREFERENCES MENU

Button Actions

- Press ▲ or ▼ to scroll between menu options.
- Press ✔ to select a preference for editing:
  - Press ▲ or ▼ to change the selected preference.
  - Press ✔ to save your changes, or ⏻ to cancel.
  - Press and hold ✔ to reset the selected preference to its default value.
- Press ⏻ to go back to the previous screen.

Menu Options

🔊 **Initial Volume**	Specifies the initial volume for the session. *NOTE: This option is only available if Auto-Save is turned off.*
☀ **Initial Brightness**	Specifies the initial brightness for the session. *NOTE: This option is only available if Auto-Save is turned off.*
⚡ **Initial Intensity**	Specifies the initial electrostim intensity for the session. *NOTE: This option is only available for CES and MET sessions.*
🎵WAV **Audio File**	Specifies the audio file to pair with the session: • None • Default • Custom file *NOTE: This option is only available before the session is started.*
🎵WAV **Audio File Mode**	Specifies the mode for the paired audio file: • Default – The session and audio file will play independently. • Repeat – The audio file will loop to match the session duration. • Sync – The session will be scaled to match the audio file duration. *NOTE: This option is only available before the session is started.*
🎵WAV **Audio File Volume**	Specifies the volume of the paired audio file.
🎵 **Tone Type**	Allows the tone type to be overridden: • Default • Pulse • Monaural • Binaural • Off

♫ **Pitch** **(Advanced Mode)**	Allows the pitch to be overridden: • Default • Custom value (100 to 1000 Hz)
♥ **Heartbeat**	Allows the heartbeat to be overridden: • Default • Off • Custom value (10 to 100 BPM) (Advanced Mode)
♫♥ **Tone/Heart Mix** **(Advanced Mode)**	Allows the tone/heartbeat volume ratio to be overridden: • Default • Custom value (-50 to +50)
👓 **Light Shape** **(Advanced Mode)**	Allows the eyeset light shape to be overridden: • Default • Classic • Sine • Triangle • Off
👓 **Left/Right Color**	Very specific colors may be desired for clinicians who practice color therapy. This option allows the eyeset left/right color to be overridden with your own color. The codes below are Hex codes for red/blue and green. Use www.colorpicker.com and enter the codes into the color picker. Select any color in ColorPicker and it will give you the Hex code. • Default • White (#FFFFFF) • Red (#FF0000) • Orange (#FF8000) • Yellow (#FFFF00) • Chartreuse (#80FF00) • Green (#00FF00) • Spring (#00FF80) • Cyan (#00FFFF) • Azure (#0080FF) • Blue (#0000FF) • Violet (#8000FF) • Magenta (#FF00FF) • Rose (#FF0080)
⎍ **Electrostim Type** **(Advanced Mode)**	Allows the electrostim type to be overridden for AVE sessions: • Default • CES • 50% CES • MET *NOTE: This option is only available before the session is started.*
⎍ **Electrostim Mode**	Allows the electrostim frequency to be overridden for AVE sessions: • Default • Sync (Advanced Mode) • 100 Hz

Tone Selection

Choose an AVE session and hold ✅ until the word edit shows up on bottom right of menu display. Press ✅ to edit. Press 🔻 and scroll through choices. You will see Default, Pulse, Monaural, Binaural, or off.

Audio File Selection

Before you begin a session, hold down ✅ until the word EDIT shows up on bottom right of menu display. Press ✅ to edit the audio file. Scroll through the choices with ✅ and 🔻 then press ✅ to save. Use the ⏻ to return to the session. You can also edit the Audio File Volume using the same method. Just scroll down until you see Audio File Volume.

Most of the CES sessions are already preset to synchronize with AVE/RAVE sessions. Once the session is running, press both INT 🔺 🔻 to select 100 Hz. By pressing both INT buttons again, the stimulus frequency will once again match the session frequency. CES does not function with the ganzfeld and chakra sessions.

BEFORE YOU BEGIN AN AVE SESSION

Prepare your space:
Be sure you have a comfortable, quiet, and darkened space and recline yourself to get comfortable. And be sure you have allowed ample time for your entire session without interruptions and minimize outside distractions.

Stay Hydrated:
Drink a glass of water 15 minutes before your session. Staying hydrated will help to prevent headaches or feeling groggy.

Plug in the Eyeset:
One end of the Spectrum cord connects to the port on the left side of the Spectrum while the other end connects to the 👓 port on the Premier. Note that only the EYESET 1 port is interactive with the buttons on the Spectrum.

Plug in the Headphones
Connect the headphone plug to the 🎧 jack on the unit. Please ensure that you have the side marked "L" on your left ear and the side marked "R" on your right ear.

Turn on the Premier
Push and hold ⏻ until the power light comes on.

Select a Session

Tap ⏻ to power up the Premier. Once the screen has been initialized, the menus may be selected to select preferences.

Relax and Enjoy

The session turns on slowly, with the Spectrum Eyeset lights getting brighter and the tones in the headphones slowly getting louder over a 10-second period. Put on the headphones and eyeset. Close your eyes during your session and relax. When session time is up, the lights and sounds will gradually fade out (Soft-Off).

If you are using CES.

1) Plug CES earclip cable into the [icon] port on your Premier.
2) Wet ears well with tap water, saliva, or electrode gel.
3) One side of the ear clip has a rubber electrode. It doesn't matter which side of the ear the electrode goes on.
4) Once the session is running, press and hold the INT up arrow. You will see the bar graph climbing.
5) When you can feel mild stimulation, stop pushing the INT button. Short presses of the INT button will allow small modifications in stimulus intensity.

LIVE SESSION

A LIVE session is applied in a therapeutic setting. With LIVE, the user has real-time control over every aspect of the AVE and CES experience. Simply scroll through the menus and make changes to the settings as shown below.

LIVE SESSION SETTINGS MENUS

Button Actions

- Press [▲] or [▼] to scroll between menu options.
- Press [✓] to select a setting for editing:
  - Press [▲] or [▼] to change the selected setting.
  - Press [✓] to save your changes, or [⏻] to cancel.
  - Press-and-hold [✓] to reset the selected setting to its default value.
- Press [⏻] to go back to the previous screen.

Menu Options

Hz **Frequency Mode**	Specifies the frequency mode: • Dual – Operates the left and right channels independently. • Sync – Operates the left and right channels in phase. • Alternate – Operates the left and right channels 180° out of phase.

Hz **Frequency** **(Single or Left/Right)**	Specifies the stimulation frequencies.
Hz **Randomization**	Enables frequency randomization at all frequencies between ± 1Hz. Randomization has been shown to be more effective than fixed a fixed frequency.
🎵 **Tone Type**	Specifies the tone type: • Off • Pulse • Monaural • Binaural
🎵 **Pitch**	Specifies the pitch of the audio tone (pulse tone, monaural and binaural beats).
♥ **Heartbeat**	Enables the heartbeat audio effect. This may be used as a pleasant audio effect or used as a breath pacer for heart rate variability. As a breath pacer, the standard method is to use a four-beat breath cycle, meaning 24 heart beats would be used for six breaths / minute.
♥ **Heart Rate**	Specifies the heart rate for the heartbeat sound effect.
👓 **Light Shape**	Specifies the eyeset light shape that will be used during the session: • Off • Classic • Sine • Triangle
👓 **Left/Right Color**	Specifies the eyeset left/right colors that will be seen during the session: • White (#FFFFFF) • Red (#FF0000) • Orange (#FF8000) • Yellow (#FFFF00) • Chartreuse (#80FF00) • Green (#00FF00) • Spring (#00FF80) • Cyan (#00FFFF) • Azure (#0080FF) • Blue (#0000FF) • Violet (#8000FF) • Magenta (#FF00FF) • Rose (#FF0080)

⎓ **Electrostim Type**	Specifies the electrostim type for the session: • None • CES • 50% CES • MET *NOTE: This option is only available before the session is started.*
⎓ **Electrostim Mode**	Specifies the electrostim frequency mode (if enabled) when the session begins: • Sync • 100 Hz
🔊 **Initial Volume**	Specifies the initial volume when the session begins. *NOTE: This option is only available before the session is started.*
☀ **Initial Brightness**	Specifies the initial brightness when the session begins. *NOTE: This option is only available before the session is started.*
⚡ **Initial Intensity**	Specifies the initial electrostim intensity for the session (if enabled). *NOTE: This option is only available before the session is started.*
◑ **Soft-On Duration** or **Transition**	Specifies the soft-on duration for the session, or the transition for new stimulation settings after the session has started.

SYSTEM SETTINGS MENU

System Settings allows the following types of controls

<u>Button Actions</u>

- Press ▲ or ▼ to scroll between menu options.
- Press ✔ to select a setting for editing:
  - Press ▲ or ▼ to change the selected setting.
  - Press ✔ to save your changes, or ⏻ to cancel.
  - Press and hold ✔ to reset the selected setting to its default value.
- Press ⏻ to go back to the previous screen.

Interface Mode	Controls the complexity of the user interface: • Basic – Offers a simplified experience with reduced features. • Advanced – Offers a fully featured experience.
Screen Saver (Advanced Mode)	Controls the screen saver: • On – The screen will turn off after 30 seconds during a session. • Off – The screen will stay on during a session. *NOTE: Screen burn-in may result if the screen saver is turned off during extended use.*
Auto-Play (Advanced Mode)	This is used for research or if a clinician wants the playback of a session to be as easy as possible. To enable this feature, the microSD card must have only one session on it. With Auto-Play selected, the session on the microSD card will automatically play the moment the Premier is powered up, without having to go through the menu to select it. Because the session auto-plays, a background sound cannot be selected. It will need to be selected from the DAVID Studio and paired with the session. • On – If a single session is present, it will play when the device is turned on. • Off – Auto-play is disabled.
Auto-Save (Advanced Mode)	Controls the auto-save feature: • On – AVE sessions will save the last volume and brightness settings which were selected when the session was playing. • Off – Auto-save is disabled.
Date & Time	Sets the date and time: • YYYY-MM-DD • HH:MM AM/PM
Clear Session History	Clears the list of recently used sessions. The Recently Used Session menu option will disappear until a session has been reselected.
Reset to Default Settings	Resets the system settings and session preferences to the factory settings.
Device Info	Displays the following device info: • Firmware version • Serial number • Supported session types (AVE, CES, MET, tDCS)

WARRANTY AND CARE

WARRANTY

The DAVID Premier is warranted against defects in workmanship or materials for one year from date of original purchase, on the terms stated herein. Should this unit become inoperative within the one-year

period, it will be repaired or replaced at our option, without charge. Any postage, insurance, and shipping costs incurred in returning the DAVID Premier for service are the responsibility of the customer.

This warranty does NOT cover:

• shipping damage,

• damage caused by accidents or by other than normal use,

• improper battery installation,

• physical damage to cords for headphones and eyeset,

• damage caused by exposure to excessive static electricity,

• damage caused by any unauthorized person tampering with the DAVID Premier.

RETURNING FOR REPAIR

Should your DAVID Premier require repair, please contact us via email (info@mindalive.com) or phone to obtain a warranty/repair authorization number and important shipping instructions.

When returning your device for repair, be sure to surround the DAVID Premier with at least one inch of tight packing on all sides in a strong carton. Neither Mind Alive Inc., nor courier companies will pay for damage incurred by poorly packaged goods. Label the carton "FRAGILE, HANDLE WITH CARE." Include a copy of your sales receipt, a brief written description of the problem, and a daytime contact number. All postage, insurance, and shipping costs incurred in returning the DAVID Premier for service are the responsibility of the customer.

FOR UNITED STATES AND INTERNATIONAL CUSTOMERS

Failure to receive proper instructions about completing customs and shipping documents may result in additional brokerage and duties charges to the customer. Some courier companies do not include brokerage fees in their quoted charges. The customer is responsible for any, and all charges. Equipment will not be returned to the customer until these charges have been paid. Indicate on ALL shipping documents "RETURN TO COUNTRY OF ORIGIN FOR REPAIRS UNDER WARRANTY".

CARE AND MAINTENANCE

Use a soft, slightly moistened cloth (use water or mild detergent) to clean the DAVID Premier. Do not clean with any solvents. Do not subject the DAVID Premier to static electricity. Do not place the DAVID Premier near heat sources such as radiators, air ducts, or in direct sunlight. Should any liquid enter the DAVID Premier, turn it off immediately. If liquid does enter the electronics, we advise that the DAVID Premier be checked by authorized personnel before commencing operation.

COMPLIANCES

FCC Compliance Statement

CAUTION: The manufacturer is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment. NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

– Reorient or relocate the receiving antenna.
– Increase the separation between the equipment and receiver.
– Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
– Consult the dealer or an experienced radio/TV technician for help.

ISED Compliance Statement:

This Class B digital apparatus complies with Canadian **Interference-Causing Equipment Standards**

ICES-003.

Cet appareil numérique de la classe [B] est conforme à la norme NMB-003 du Canada.

CAN ICES-003(B) / NMB-003(B)

Declaration of Conformity

Manufacturer:
Mind Alive Inc.
6716 75 St NW
Edmonton, Alberta T6E 6T9 Canada

Mind Alive Inc. declares under our sole responsibility that:

Product Name: DAVID Premier
Product Model(s): PREM1
Complies with the following European Directives:
2014/30/EU Electromagnetic Compatibility (EMC)
2014/35/EU Low Voltage (LVD)
2011/65/EU on the Restriction of Hazardous Substance (RoHS3)

Conforms to the Following Standards:
EN 55032:2015+A1:2020 (EMC emissions and interference)
EN 55035:2017+A11:2020 (ESD and Immunity)
EN 62368-1:2014+A11:2017 (LVD)
EN 63000:2018 (RoHS)

The technical documentation required to demonstrate that the products meet the requirements of the aforementioned directives has been compiled and is available for inspection by the relevant enforcement authorities.

WARNINGS

NOTICE TO HEALTH CARE PROVIDERS:

It is the responsibility of the health care provider to complete a proper intake addressing the following warnings.

AUDIO-VISUAL ENTRAINMENT (AVE):

If you are an epileptic, photic epileptic, or have any history of seizures: We recommend that all persons who have a history of epilepsy, photic epilepsy, or have ever had a seizure of any kind not use AVE unless under the supervision of a health care professional who is qualified in the safe detection of seizures.

If you have had a brain injury or suffer from any mental disorder or psychiatric illness: We recommend that people who have had a brain injury or have a history of psychiatric illness or mental disorders not use AVE unless under the supervision of a qualified health care professional.

If you are taking drugs or using alcohol: We recommend that people currently using drugs and/or excessive alcohol consumption, not use AVE unless under the supervision of a qualified health care professional.

If you are a first-time Premier user: We advise that you always remain seated or reclined while using the DAVID Premier. We also suggest that new users begin sessions with low brightness in the eyeset. If at any time during a session, you begin to feel vertigo, nausea, euphoria, or a sense of mental instability, lower the intensity of the eyeset and lower the volume of the tones or discontinue the session.

The AVE stimulation of the DAVID Premier is non-invasive. All resulting effects are produced in the brain solely by Audio-Visual Stimulation.

CRANIO-ELECTRO STIMULATION (CES):

If you have a heart pacer: We recommend that people who have a heart pacer DO NOT use CES. The electrical signals may cause the pacer to malfunction, leading to serious injury or death.

If you have epilepsy, brain tumor, or stroke: We recommend that people who have epilepsy, brain tumor, or have had a stroke, not use CES unless under the supervision of a qualified health care professional.

If you have skin lesions: We recommend not placing electrodes over skin lesions, new scars, cuts, eruptions, or sunburn. Setting the intensity too high may result in a mild irritation or blistering of the skin. Set the intensity to a lower level so that the stimulus is only mildly noticeable. Double-blind studies show that CES works at the sub-threshold (below feeling) level.

Do not use CES while driving or operating hazardous machinery.

MICROCURRENT ELECTRO THERAPY (MET):

If you have a heart pacer: We recommend that people who have a heart pacer DO NOT use MET. The electrical signals may cause pacer malfunction.

Do not place probes over skin lesions, new scars, cuts, eruptions or sunburn.

Do not use while driving or operating hazardous machinery.

TRANSCRANIAL DC STIMULATION (tDCS):

If you have a heart pacer: We recommend that people who have a heart pacer DO NOT use tDCS.

While tDCS is a powerful and relatively safe technology, the tDCS sessions are to be used only by qualified clinicians who have a thorough understanding of tDCS and the clinical ability to recognize and treat any adverse reactions resulting from usage of tDCS.

PRECAUTIONS

Traumatic Childhood Experiences: The DAVID Premier can cause the release of suppressed memories. If traumatic memories surface during or after a session, be certain to seek appropriate support.

Startle Response: If abruptly returning to a normal conscious state, the user may feel disoriented, nauseous, or experience a headache. All preset sessions in the DAVID Premier are programmed to end with the lights and sounds gradually fading out (Soft Off™) to avoid a startle response. Whenever possible, end all sessions with Soft Off.

Orthostatic Hypotension: Occasionally when a person becomes very relaxed during a session, their blood pressure may fall significantly. We advise rising slowly after a session.

DISCLAIMER OF LIABILITY

Mind Alive Inc., its employees, its authorized dealers, and distributors shall not be held liable for any claim, demand, action, cause of action, liability or damages arising out of any injuries resulting from malfunction or defect of the DAVID Delight whether willful or negligent either to persons or damage to property of the purchaser, employees of the purchaser, persons designated by the purchaser for training in the use of the DAVID Delight, clients or patients of the purchaser, any other person, designated by the purchaser for any purpose, prior to or subsequent to acceptance, delivery, installation and use of the DAVID Delight either at the premises of Mind Alive Inc. or the premises of its dealers or distributors, or the purchaser's premises. The purchaser, employees of the purchaser, clients or patients of the purchaser, or any other person designated by the purchaser for any purpose, hereby undertake to waive and disclaim any action in respect of the aforesaid terms as above.

APPENDIX A: TROUBLESHOOTING

Performing a Hard Reset

1. Press and hold ⏻ for 10 seconds until the device resets and the splash screen appears.

Entering Test Mode

1. Make sure the device is turned off.
2. Press and hold ⏻ until the device turns on and the splash screen appears.
3. Immediately release ⏻ and press and hold ✔ until the *Test Mode* screen appears.

Performing Firmware Recovery

1. Make sure the device is turned off.
2. Press and hold ✔ while connecting the device to Windows using USB.
3. Release ✔ when Windows detects a USB drive labeled *CRP2 ENABLD*.
4. Delete *firmware.bin* from the USB drive and replace it with a valid firmware file.
5. Eject the USB drive from Windows and unplug the USB cable.

Power LED Error Patterns

- Single Red Flash: Invalid firmware, perform firmware recovery.
- Double Red Flash: Power initialization failed, check battery and power circuitry.
- Continuous Red Flash: See error message on screen.

Formatting Memory Cards

- microSD, microSDHC (≤ 32 GB): Install SD Memory Card Formatter, and select *Quick format*.
- microSDXC (> 32 GB): Install Rufus, and select *Non bootable, Large FAT32*.

APPENDIX B: SPECIFICATIONS

Physical & Environmental

Dimensions	11.7 x 7.9 x 2.4 cm
Weight	150 g
Operating Temperature	0 °C – 45 °C
Storage Temperature	-10 °C – 55 °C

Battery & Power

Input	USB 2.0 micro-B
Battery	Rechargeable 2000 mAh lithium-ion polymer
Charging	7.5 W (5 V, 1.5 A) BC1.2, Apple, or TomTom compatible
Runtime	AVE: Up to 27 hours (17 hours with audio file) Electrostim: Up to 60 hours

Display

Type	Passive-matrix OLED
Size	3.5 x 1.75 cm (1.54" diagonal)
Resolution	128 x 64 pixels

Memory Card

Type	microSD, microSDHC
File System	FAT16, FAT32
Max Capacity	32 GB (larger cards are supported if formatted as FAT32)

Audio Input/Output

Type	3.5 mm stereo
Input Level	0.707 V_{RMS}
Output Power	95 mW at 16 Ω
Max Headphones	2 (using third-party splitter)

Eyeset Output

Type	Spectrum™
Max Eyesets	2

Electrostim Output

Type	2.35 mm
Max Voltage	60 V
Max Current	Pulsed: 13.5 mA Continuous: 2.5 mA

Session Files

Supported Formats	DAVB, DAVX
Max Files	200
Max File Size	4 GB
Max Duration (HH:MM)	12:00

Audio Files

Supported Formats	WAV (16-bit PCM, 44.1 kHz, mono or stereo)
Max Files	100
Max File Size	4 GB
Max Duration (HH:MM)	Mono: 13:30 Stereo: 6:45

AVE Characteristics

Frequency	0.1 – 50 Hz
Pitch	100 – 1000 Hz
Heartbeat	10 – 100 BPM
Colors	195,841 (24-bit, full brightness)

CES Characteristics

Pulse-width	300 µs
Frequency	0.1 – 200 Hz
Voltage	5 – 60 V
Start Resistance	300 kΩ
Open-circuit Resistance	500 kΩ
Open-circuit Timeout	1 second

50% CES Characteristics

Pulse-width	50% duty cycle
Frequency	0.1 – 100 Hz
Voltage	5 – 20 V
Start Resistance	300 kΩ
Open-circuit Resistance	500 kΩ
Open-circuit Timeout	1 second

MET Characteristics

Pulse-width	700 µs
Frequency	0.1 – 200 Hz
Voltage	5 – 60 V
Start Resistance	300 kΩ
Open-circuit Resistance	500 kΩ
Open-circuit Timeout	5 seconds

tDCS Characteristics

Current	0.05 – 2.5 mA
Max Voltage	40 V
Start Resistance	15 kΩ
Open-circuit Resistance	200 kΩ
Open-circuit Timeout	1 millisecond

| 6716 - 75 St NW
Edmonton, Alberta
Canada T6E 6T9 | Toll Free: 1.800.661.MIND (6463)
Phone: 001.780.465.MIND (6463)
E-mail: info@mindalive.com
Website: www.mindalive.com |