LIMINA

1. of or relating to a transitional or initial stage of a process.

2. occupying a position at, or on both sides of, a boundary or threshold.

Lim.i.nal (adj.)

Thank you for choosing the Limina Light & Sound system. We believe it is the most advanced and cost-effective audio-visual stimulation system in its class on the market today. The Limina is a powerful tool for exploring a wide range of interesting and beneficial states of awareness, and we think you will find it very helpful when used regularly.

How it works, and what it can do

The Limina includes over 70 pre-programmed sessions, each designed with a specific goal in mind. Our manual expands on how to use Limina, but you don't need to study it before use. We suggest that you first work with those sessions which best fit your needs before exploring further.

Sessions are constructed from a number of segments of variable length, each of which can start at one frequency and color/brightness combination, and end at a different one, smoothly ramping between those numbers as the segment runs. As a simple example, a relaxation session might start at 15 Hz and

Then ramp down to 8 Hz over several minutes; the second segment might dwell at 8 Hz for 10 minutes, and a third and final segment might ramp back up to 15 Hz. Most of the sessions included with your Limina are more complex than that.

The Limina can also decode audio tracks encoded with SpectraStrobe™ and legacy AudioStrobe® light control signals. To access this feature, use the included audio patch cable to connect your phone or other MP3 player to the AUX input, which is the top left jack on the control console.

Alternatively, you can connect the Limina to your computer using a USB cable, and configure it as a USB audio device. Finally, the Limina includes a manual control mode, allowing you to select a frequency, audio pitch and phase (on/off both eyes or left/right alternating) and choice of LED light color via the ColorSets.

To use your Limina, you'll need two fresh AA batteries.

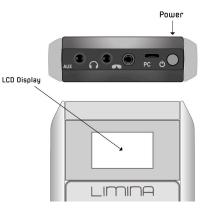Carefully unpack your Limina™ and its accessories.
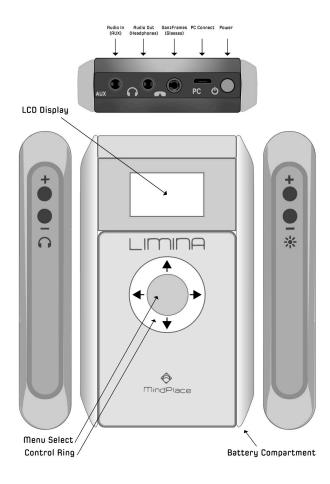
The package should include:

- **Limina control console**
- **Multi-color GanzFrame™ eyewear**
- **Ear-bud style headphones**
- **Stereo audio patch cable (3.5mm)**
- **Micro USB cable**
- **QuickStart guide**
- **Sessions Book**

To insert the batteries, open the battery compartment by sliding the cover on the lower back side of the console open. The springs inside the case contact the negative (-) side of the battery. Slide the cover back into place.

Battery Compartment

AA

Now turn it on by holding the button at the top right down for a second. You should now see the main menu.

Power

LCD Display

LIMINA

Audio In (AUX) Audio Out (Headphones) GanzFrames (Glasses) PC Connect Power

AUX

LCD Display

LIMINA

MindPlace

Menu Select
Control Ring

Battery Compartment

Controls

There are a number of buttons used to control the console's function:

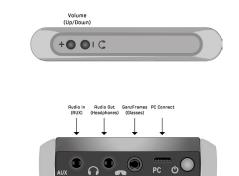**On/Off** button is on the top right side of the case. Press and hold for a second to turn it on or off.

Control Ring: up, down, left (back) and right (forward)

Menu Select: main control/select button in the center.

Brightness control buttons are on the top right side; press the top one **(marked +)** several times to increase brightness in steps, and press the bottom one **(-)** to decrease brightness in steps.
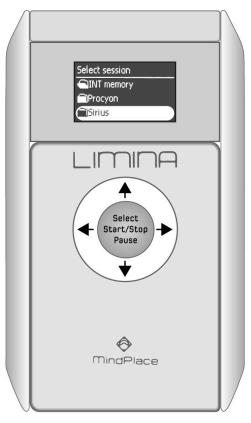
Brightness (Up/Down)

+ ● ● I ☀

Volume control buttons on top left side: **(+up / -down)** functions identically to brightness.

Volume (Up/Down)

+ ● ● I C

Ports

Audio In (AUX) Audio Out (Headphones) GanzFrames (Glasses) PC Connect
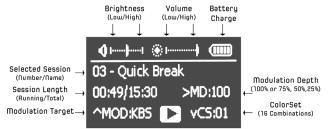
AUX   PC

LCD Display

The compact LCD display is used to navigate between the various menu items using the Control Ring's up, down, left, and right buttons to make selections within a menu choice. In the center of the Control Ring, the button is used to select a function and to start or stop a session (Menu Select).

Session Info Screen

Once a session has started, the LCD displays the following information:

- Volume and Brightness levels

- Battery Charge (estimated remaining)z

- Session Number / Session Name

- Session Length (running time/total length)

- Modulation Depth. Defaults to 100%, but can be changed to 75%, 50% or 25%

- Modulation Target

- Play/Pause Indicator

- ColorSet: There are 16 available combinations of colors. Both static and dynamic (colors change during the session's progress).

* The inside back cover displays a list of all 16 color sets *

We will describe these features in more detail further into the manual but first, let's set your system up and prepare for your first session.

Getting Started

1. Slide the battery cover on the lower back of the console case downwards to open it. Insert two AA batteries, with the negative (-) end of the battery facing the spring coils. Slide the battery cover back on until it clicks into place.

2. Next, insert the GanzFrame cable plug into the jack next to the micro USB jack, and the earphones into the jack next to it. The jack closest to the volume control buttons is the AUX audio input.

3. Now turn the console ON by holding the power button down for a few seconds.

4. The main menu appears on the LCD screen and you can access the Sessions folder, USB, AUX audio, and Settings by pressing the bottom or top of the control ring. Select Sessions and press the middle/center button.

5. Two folders appear, named Sirius and Procyon. Select one and press the middle button to open it. You can then use the top and bottom of the control ring to scroll through a list of those session (press and hold to scroll more quickly).

6. Find a comfortable seated position. Choose a session, put the GanzFrames and earphones on then close your eyes. Pressing the middle button in the center of the Control Ring starts the session.

7. This initiates a 10 second countdown to allow you time to get comfortable. Most sessions will begin by fading-in gently. To jump right in and bypass the countdown, press the middle button briefly again.

8. Adjust the brightness and volume to your liking using the buttons on the top sides of the console. Enjoy your journey!

During your session

You can pause your session by pressing the middle button in the center of the control ring briefly once, and resume it by pressing it again. To end the session before it's over, press and hold the middle button briefly. To return to the main menu, press the left button.

You can also change the audio modulation depth during a session. This is normally set to 100%, but can also be set to 25%, 50% and 75%. Lower settings do not turn fully on and off, resulting in a softer audio experience.

You can choose to modulate external audio as well, which can be very interesting, especially at lower pulse rates. Try this feature with ambient electronic music, for example.

Use the top/up button on the Control Ring to toggle between KBS (internal audio), AUX (modulated external audio) and KBS+AUX (both internal and external at the same time). The default setting is internal audio.

If you've chosen a Sirius session, then you can select whichever color you wish using the ColorSets. There are 16 of these available; see the chart at the end of this manual for details.

Pressing the bottom button steps through the various choices until you find your favorite one for that session. Color changes are pre-programmed in the Procyon sessions.

ColorOrgan

Just for fun, there is a Color Organ option available in the AUX and USB modes, which splits the sound into bass, midrange and treble, and responds to the loudness in each band by modulating the LED brightness.

This works best with music that has a beat. To access this feature, press the top of the wheel once; the icon on the lower left should read ^M:CO which indicates that you used the top of the wheel to load the ColorOrgan mode.

Once accessed, an icon appears on the lower right of the screen; use the bottom of the wheel to step between the six available ColorOrgan programs.

Menu Choices

USB: Your Limina can act as a USB audio device, which sometimes provides cleaner sound quality than via AUX input. Simply connect your console to your computer with the included micro USB cable, select USB Audio on your console and lock that into action by pressing the middle button.

While in use, the top/up button on the Control Ring is used to toggle between the Spectrastrobe/AudioStrobe decoder and the Color Organ, while the bottom/down button is used to move between ColorSets (which are only active when AudioStrobe or the Sirius sessions are played). In the ColorOrgan mode, there are six choices for how that responds to your audio (CP 01-06).

Use this USB mode as well for adding folders and sessions to your Limina. The Limina's memory capacity is large and only about one fifth is filled with the factory sessions.

AUX Audio: In this mode, you can connect your audio player to the Limina using the included audio patch cable. Plug one end into the jack on the top left side of the console and the other into your player. Choices are otherwise identical to USB mode.

Settings: You can customize your Limina in a variety of ways using the Settings selection. Remember once you select a setting, press the middle button to lock that choice into place. These include the following choices:
Language, General, and Power Management.

Language:

This setting changes the default language in the LCD display:

- **English**
- **Czech**
- **Russian**
- **German**

General:

- **Play countdown:** This is the number of seconds that will pass between the time you press the middle button to start a session and when it starts. This is factory preset to 10. Use the top and bottom buttons to choose a longer or shorter countdown.

- **Button backlight:** You may have noticed a mysterious blue light leaking through the gap between the middle button and the control ring…this is preset to 3, but you can increase it up to 9.

- **Loop playing:** When Loop Playback is set to Off (the default setting), then pressing the center button causes the currently highlighted session to play to the end of the session and then stop. Pressing the right side of the control ring results in the currently highlighted session to play, followed by every other session in the folder until the end, and then it stops. When loop playing is turned on, pressing the center button causes the selected session to play over and over again, until either you stop it or the batteries die. Pressing the right side of the control ring causes the currently selected session and all those after it in the folder to play in sequence, over and over again.

Power management:

- **Display Backlight:** Change how bright the display is from: 0 to 7 (Default: 6)

- **Display Off Time Out:** Choose between 5 minutes and Never

- **Device Off Time Out:** This determines how long your Limina will remain on when not running a session. Choose between 5,10, 15, 30 minutes or Never Off (not recommended).

About the technology

Sessions all consist of a series of segments that play one after another and can vary in length. Each segment has an associated pulse rate, brightness and color choice, audio waveform and volume level, some of which typically can change over time.

The first segment will usually start with brightness and volume set to zero, and then gradually increases over the course of the segment, and the last segment typically will reverse this to fade out to end a session.

About the included sessions

The sessions pre-installed in your Limina include all the sessions from our best-selling Sirius and Procyon AVS models.

The Sirius sessions are based on the KBS (Kasina Basic Session) format developed for the Kasina. These sessions allow a lot of color choices via the user-selectable ColorSets.

The Procyon sessions were recreated using a more advanced, recently developed version of the KBS format that allows embedded color ramping just like the Procyon. This version also expanded the choice of audio waveforms to include triangle, pulse, sawtooth and pink noise. We now refer to these two KBS formats as KMMS, for Kasina Mind Machine Session.

All Limina installed Sessions (List and Descriptions) can be found in the separate Sessions booklet. Updates and new sessions will be made available in PDF format. For updates sessions and firmware please visit on our support site.

Customized Folders

Before we describe these sessions, we'd like to let you know about creating your own playlists. Just connect to your computer via USB, select USB on the Limina and press the center button. When a "removeable disk" window opens on your computer you're now ready to create your own playlist.

Create and name a new folder, then select one or more session from the Sirius and Procyon folders and copy and paste them into the new folder. It's that simple!

Backup

When customizing, adding or moving files - it is always a good idea to back up your original set. Do this by dragging and dropping or copy-paste the folder in a section on desktop computer designated for backup files.

FAQs

What is AudioStrobe® and SpectraStrobe™?

Both employ low level, high frequency audio to directly control the lights. AudioStrobe includes one signal per audio channel, while SpectraStrobe employs 4, in order to control RGB.

Lights stopped flashing properly - what happened?

You may have accidently toggled the decoder mode into the ColorOrgan mode by pressing the top of the control ring during a session. Only the bottom of the ring is used to step through ColorSets when playing back non-SpectraStrobe sessions. If this is not the cause, then contact support@mindplace.com

How do I set the Limina as a USB audio device?

When you select USB from the menu and press the middle button to lock it in, two things happen. Your computer now recognizes the memory in the Limina as a removably disk, and you can open the folders, view session names, and drag and drop new sessions into those folders (or create your own folders)

How do I update Limina firmware?

Please visit: www.mindplacesupport.com to download the Kasina/Limina Firmware Updater. It's a simple program that walks you through updating the Limina step-by-step.

How do I add more sessions to the Limina?

While in USB mode and with window showing Limina as a removable disk open, simply drag the session into your chosen folder, and you'll be able to play it within your Limina. There is enough space in its memory for you to add hundreds of additional sessions.

Where can I get more info or help?

Be sure to visit our support site for additional Limina technical and operational details, free session creation software, tutorials, and our user Forums.

Our SoundCloud account includes dozens of free AudioStrobe® and SpectraStrobe™ content that you can download and play through the AUX input, while our Youtube account hosts numerous tutorials and other videos of interest. Visit us on Facebook and Instagram, and of course our main website.

www.mindplace.com

www.mindplacesupport.com

www.soundcloud.com/MindPlace

www.youtube.com/user/TheMindPlace

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