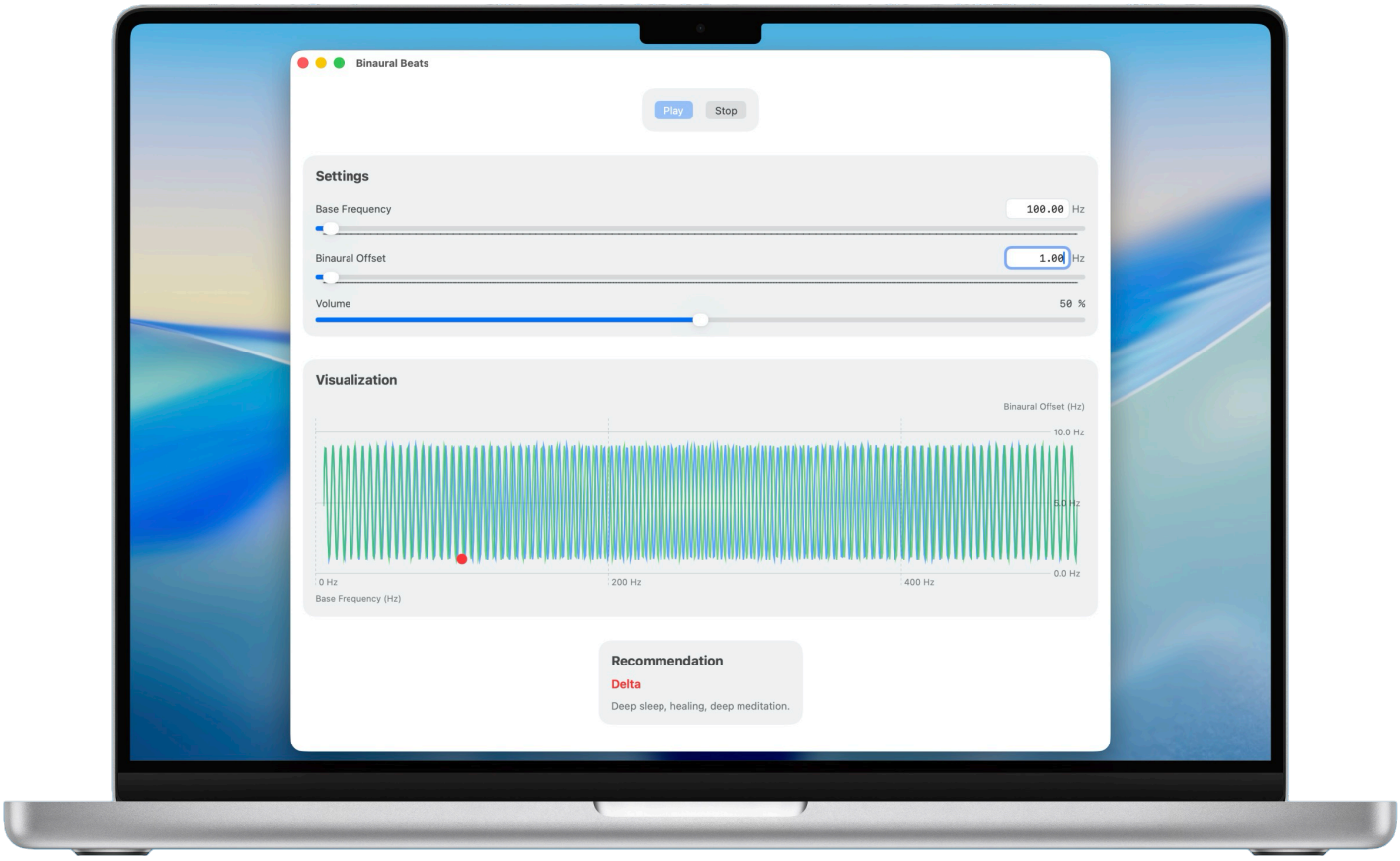
Binaural Beats Manual

For iOS & MAC



Binaural Beats on MacOS

Complete User Manual & Frequency Reference

Welcome to the ultimate guide for using our **Binaural Beats App** — a powerful tool that combines **precise auditory stimulation** with **real-time oscilloscope visualisation** to help you explore, understand, and influence your mental states.

This manual serves three purposes:

1. Teach you **how the app works**

2 Explain **what each control does**

3 Provide a **comprehensive reference of known binaural beat frequencies and tunings**

Whether you are new to binaural beats or an experienced practitioner, this guide will help you get the most out of the software.

Before we dive in, make sure to download and install your copy on your iPad, iPhone, or Mac. If you have multiple devices linked to the same iCloud account, you can enjoy the software on all of them!

1. What Are Binaural Beats?

Binaural beats occur when two slightly different frequencies are played separately to each ear using stereo headphones.
Your brain does not hear two tones — instead, it perceives a **third rhythmic pulse**, equal to the **difference between the two frequencies**.

This perceived pulse can influence **brainwave activity**, a process known as **neural entrainment**.

2. Application Overview

Main Controls (Top Bar)

- **Play** – Starts audio playback
- **Stop** – Stops playback immediately

Settings Panel

- **Base Frequency (Hz)**

The foundational tone used as the carrier signal.

- **Binaural Offset (Hz)**

The frequency difference between left and right channels.

- **Volume (%)**

Output level (does not affect effectiveness).

Visualization Panel

- **Oscilloscope Display**

Shows the left and right waveforms and their phase interaction in real time.

3. Base Frequency Explained

The **Base Frequency** is the audible carrier tone.
One ear receives the base frequency, the other receives the base frequency plus the binaural offset.

Important:
The base frequency does *not* determine the brain state — the **offset does** — but it strongly affects **comfort, tone colour, and somatic perception**.

Common Base Frequency Ranges

- **60–120 Hz** – Grounded, bodily, calming
- **120–250 Hz** – Neutral and widely used
- **250–500 Hz** – Bright, alert, mentally stimulating

4. Binaural Offset (The Core Mechanism)

The **Binaural Offset** determines the brainwave target frequency.

Example:

- Base Frequency: 200 Hz
- Binaural Offset: 7 Hz
- Left ear: 200 Hz
- Right ear: 207 Hz

→ Brain entrains toward **7 Hz (Theta)**

5. Oscilloscope Visualisation (Visualisation Panel)

The oscilloscope visually represents:

- The **left channel waveform**
- The **right channel waveform**
- Their **phase difference over time**

Why this matters

- Slow offsets → slow visual “breathing” motion
- Fast offsets → dense interference patterns

- Helps users *see* what they are hearing

This feature is especially valuable for:

- Education
- Fine-tuning sessions
- Demonstrating binaural mechanics in real time

6. Brainwave States & Scientific Frequency Bands

Delta (0.5 – 4 Hz)

Associated with: deep sleep, physical recovery

- Offset: 0.5–4 Hz
- Base: 100–250 Hz
- Use: sleep, deep meditation

Theta (4 – 8 Hz)

Associated with: creativity, hypnagogia, intuition

- Offset: 4–7 Hz
- Base: 150–300 Hz
- Use: meditation, visualisation, trauma work

Alpha (8 – 12 Hz)

Associated with: calm focus, flow

- Offset: 8–10 Hz
- Base: 200–400 Hz
- Use: relaxation, stress reduction

Beta (12 – 30 Hz)

Associated with: thinking, problem solving

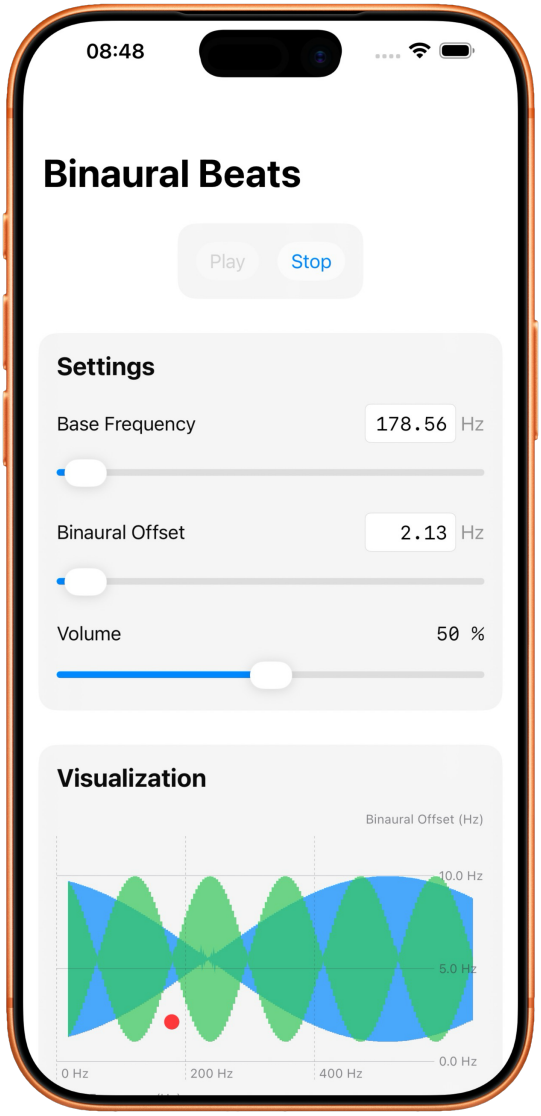
- Offset: 14–20 Hz

- Base: 250–500 Hz
- Use: studying, productivity

Gamma (30 – 45 Hz)

Associated with: cognition, memory integration

- Offset: 30–40 Hz
- Base: 300–600 Hz
- Use: learning, peak performance



Binaural Beats on iPhone

7. Famous & Popular Frequencies (Extended Reference)

Schumann Resonance – 7.83 Hz

Often called the “Earth frequency”.

- Offset: **7.83 Hz**
- Base: 150–300 Hz
- Reported effects: grounding, emotional balance
- Widely used for meditation and nervous system regulation

432 Hz Tuning (Carrier Frequency)

A popular alternative tuning system.

- **Important:** 432 Hz is **not a binaural beat by itself**
- It is used as a **Base Frequency**
- Can be combined with any offset (e.g. 432 + 8 Hz)

Common pairings:

- 432 + 8 Hz → relaxed awareness
- 432 + 7.83 Hz → grounding meditation

Solfeggio Frequencies (Carrier-Based)

These are **base frequencies**, not offsets.

Frequency	Common Association
174 Hz	Safety, grounding
285 Hz	Tissue & recovery
396 Hz	Releasing fear
417 Hz	Change, transition
528 Hz	Repair, coherence
639 Hz	Connection
741 Hz	Clarity
852 Hz	Intuition

Combine Solfeggio tones with a **binaural offset** for hybrid sessions.

Popular Modern Presets

Purpose	Base	Offset
Deep Sleep	120 Hz	2 Hz
Meditation	200 Hz	6 Hz
Schumann Session	200 Hz	7.83 Hz
Focus	300 Hz	14 Hz
Learning	400 Hz	18 Hz
Flow State	250 Hz	10 Hz

8. Binaural Beats with music

When you're ready to enjoy Binaural Beats along with some music, just remember to start your Binaural Beats frequency first. After that, you can open Apple Music to play your favorite song. If you start Apple Music before the Binaural Beats, it will mute the music, which is totally normal since it prevents any accidental mixing of the two sources. So, to mix them smoothly, always begin with Binaural Beats, then follow up with your music source. This way, the app knows you want to blend both together!

9. Volume & Headphones

- Always use **stereo headphones**
- Volume should be **comfortable, never loud**
- Higher volume does **not** increase effectiveness

10. Best Practices & Safety

- Start with sessions of **10–20 minutes**
- Increase duration gradually
- Do not use while driving or operating machinery
- If you feel discomfort, stop immediately

11. Final Notes

This software is designed to:

- Educate
- Empower experimentation
- Make binaural beats **audible and visible**

The combination of **precise controls** and **oscilloscope feedback** allows users to truly understand what they are doing — not just follow presets blindly.

12. Copyright