

Inner Balance™ Bluetooth® Instructional Sheet

WHAT IS IT? WHAT DOES IT DO?

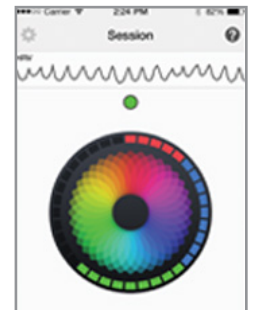
It can be easy to feel overwhelmed, anxious and scattered. The Inner Balance™ technology trains you to shift and replace emotional stress with greater balance and coherence.

It analyzes and displays your heart rhythms, measured by Heart Rate Variability (HRV), which indicates how emotional states are affecting your nervous system. (For more science, see page 2). The technology instructs users such as yourself to gain greater resilience through the practice of simple self-regulation techniques during the day.



HOW TO DO IT?

- ▶ Clip the black ear sensor to your earlobe and clip the black pod to your clothing. Turn on the button on the black pod.
- ▶ Press the arrow button at the bottom of the screen to start an Inner Balance session. In the beginning, it will calibrate for 15-20 seconds to make sure you have a good pulse reading (at the top of the screen).
- ▶ Next, focus on the area of your heart or chest area and follow the breath pacer (either a colored mandala or as you swipe through other screens, you will see other breathing pacers). Inhale for 3-5 seconds and exhale for 3-5 seconds. HRV patterns will show up at the top of the screen.
- ▶ As you sustain your deep breathing, try to engage a positive emotion or recall a time when you felt care, calm or appreciation. Try to practice this simple technique (called Quick Coherence®) for 1-3 minutes. The more coherent (in sync) you are, a blue or green color will show up indicating a medium or high coherence level.

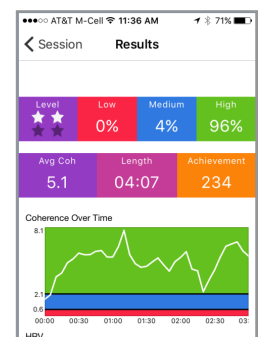


ENDING A SESSION

To end a session, single tap the screen and then press on the small box at the bottom.

YOUR RESULTS

Once completed, the session review screen will display your results. When your heart rhythms (HRV patterns) are more ordered, you receive a higher score in the **medium** or **high** coherence scores. “Achievement” reflects how you were doing over the whole session. The more time in medium or high Coherence, the higher the achievement score. (For more explanation on results, see page 2).



HeartMath® Institute
expanding heart connections

THE SCIENCE BEHIND THE INNER BALANCE TECHNOLOGY

The Inner Balance technology measures Heart Rate Variability (HRV). Heart rate variability is a measure of the beat-to-beat changes in heart rate. Scientists and physicians consider HRV to be an important indicator of health and fitness. As a marker of physiological resilience and behavioral flexibility, it reflects our ability to adapt effectively to stress and environmental demands. The normal variability in heart rate is due to the synergistic action of the two branches of the autonomic nervous system (ANS)—the part of the nervous system that regulates most of the body's internal functions. The sympathetic nerves act to accelerate heart rate, while the parasympathetic (vagus) nerves slow it down.

Many factors affect the activity of the ANS, and therefore influence HRV. These include our breathing patterns, physical exercise, and even our thoughts. Research at the HeartMath Institute has shown that one of the most powerful factors that affects our heart's changing rhythm is our feelings and emotions (*American Journal of Cardiology*, 1995).

Heart rhythm patterns during different emotional states. These graphs show examples of real-time heart rate variability patterns (heart rhythms) recorded from the same individual experiencing different emotions. The incoherent heart rhythm pattern shown in the top graph, characterized by its irregular, jagged waveform, is typical of stress and negative emotions such as anger, frustration, and anxiety. The bottom graph shows an example of the coherent heart rhythm pattern that is typically observed when an individual is experiencing a sustained positive emotion, such as appreciation, compassion, or calm. The coherent pattern is characterized by its regular, sine-wave-like waveform.

INTERPRETING YOUR RESULTS

The technology includes an infrared sensor connected to your iPhone, iPad or Android device. Session screens plot the pulse, HRV, power spectrum and coherence over time.

Coherence Ratios are a session summary of the amount of time, as a percentage of the total session length, in each of the three Challenge Level ranges. If your session was 3 minutes long and your coherence score was in the low, medium, and high range for 1 minute each then the coherence ratio display would show 33 low, 33 medium, and 33 high.

Coherence score is a measure of the degree of coherence in the heart rhythm pattern. A coherent heart rhythm is a stable regular repeating rhythm resembling a sine wave at a single frequency between 0.04-0.24 Hz (3-15 cycles per minute). The scoring algorithm continuously monitors the most current 64 seconds of heart rhythm data and updates the score every 5 seconds. The more stable and regular the heart rhythm frequency, the higher the coherence score. Scores range from 0-16. With practice and regular use, you will begin to notice your own normal coherence score level and how it fluctuates when you have more or less focus and when you experience greater levels of inner balance.

Achievement Score is the total of all coherence scores awarded every 5 seconds during a session. The scoring algorithm updates your coherence score every 5 seconds during an active session and adds them together throughout the session giving you a sum of coherence scores for the entire session. You may want to set a daily achievement goal for yourself. An achievement score of 300 points per day is a good place to start. This could be accumulated in a single session or split across two or more sessions depending on your schedule or preferences.

Challenge Level settings are thresholds or levels of coherence. With an 80% or more in high coherence, you are encouraged to move up a challenge level (click on settings in upper left hand corner).