WAVERIDER 2cx BIOFEEDBACK SYSTEM

WaveRider is a Windows-based physiological monitor that collects brainwaves and other biological signals. Musical feedback and visual displays change in response to variations in the signals. Signals are analyzed graphically for easy comprehension. Home and professional users learn and teach how to control mental states.

Professional users monitor, record, and analyze biological signals. Complex custom protocols are quickly developed with point-and-click controls. Multiple feedback indicators can be tailored to respond to complex criteria. Processed data may be exported for further analysis off-line. Live raw and processed data may be exported for real-time interaction with user-developed applications.

WaveRider consists of electrodes, computer hardware, and computer software. Electrodes that collect biological signals are affixed to the body. WaveRider hardware transmits the signals to a computer through a serial cable. **WaveWare**, the WaveRider Windows-based software, processes the signals for analysis, display, and feedback.

The WaveRider hardware has a single dedicated channel for reading skin resistance (GSR) and several multipurpose channels. Multipurpose low-noise channels read signals from the brain, heart, and muscles. Each multipurpose channel may be individually configured to collect the required type of biological signal. WaveRider hardware comes in two versions: **WaveRider Pro** and **WaveRider 2cx**.

WAVERIDER 2cx HARDWARE

- Two low noise channels read brain, heart or muscle signals

- One dedicated GSR channel reads skin resistance

- Connects to serial port of computer

- Battery operated and optically isolated

- One year warranty

- Four low-noise multi-modality channels read brain, heart, or muscle signals. A single dedicated GSR channel reads skin resistance.

WAVEWARE: WAVERIDER WINDOWS SOFTWARE

- Runs on Windows 95, 98, 2000, AND XP

- Easy to use, and includes a 150-page illustrated manual

- Comes with pre-programmed protocols that address most user's needs, and you can quickly design custom protocols

- Export processed data to spreadsheet for further analysis

- Sound variables include notes, scales, pitch, key, volume and instrument choice

- Visual outputs include music, tones, graphs, bars, and spectrogram, as well as raw and processed data.

- Feedback modes include conditional, proportional, conditional/proportional, dominant frequency and coherence

- Heart, muscle and GSR protocols

- Frequency analysis engines include both FFTS and digital filters

YOU RECEIVE:

- WaveRider 2cx hardware (pictured above)

- WaveWare Software

- Two sets of two head electrodes and a set of two ear electrodes

- Ten20 paste and NuPrep gel for applying electrodes

- Serial Cable

- Three jumper cables and lead wires

- Three 6-packs of disposable electrodes for EMG and EKG and finger clips for GSR

- User Manual

SPECIFICATIONS:

- Power Supply: one 9 volt battery (not included)

- Optical isolation on all data lines

- Sampling Rate per channel: 128 Hz

- FFT Frequency resolution: 1 Hz (FFT generated in WaveWare)

- A/D Resolution: 8 bit

- Common Mode Rejection Ratio: 100 dB minimum

- High pass filter: 0.5 Hz

- Low pass filter: 40 Hz -72 dB at 60Hz

- Two independent low noise differential channels with eight gains each.

- One channel of GSR with eight automatic offsets