

BioCaptureTM Pro

R E S E A R C H S Y S T E M



The BioCapture Pro research system includes **innovative bioinstrumentation hardware and transducers** for physiological monitoring. Rather than having separate devices to record each type of signal, BioCapture Pro can record whatever signals are necessary for a particular study, including **any combination of signals**, such as EEG, ECG, respiration, spirometry, oximetry, EMG and more - with compact hardware that can fit in the palm of your hand. In addition to state-of-the-art **wireless** hardware, Great Lakes NeuroTech has partnered with DataWave Technologies®, the recognized leader in data acquisition and analysis software, to provide the advanced software package, SciWorks™ CM. A **powerful software platform**, SciWorks CM provides highly sophisticated data acquisition, experiment control, data analysis and data management, without the need for any additional programming.

BioCapture Pro's **flexible research platform** makes it the ideal option in animal or human studies for cardiopulmonary research, neuromonitoring research, pre-clinical or clinical research.

BioCapture Pro's
wireless technology
opens up
a whole new realm of
research opportunities



Hardware

The BioRadio® 150 is a **wireless** 12-channel monitor designed for viewing and recording **any combination** of physiological signals. 8 of the channels are fully configurable allowing **any signal** to be recorded on **any channel**. The user unit also includes an auxiliary DC input and embedded sensors that can be used to monitor pulse oximetry, pressure based airflow and accelerometry. The wide array of additional transducer options range from nasal oral thermocouples and Piezo-electric respiratory effort belts to hand dynamometers and force plates. Because of the system's wireless and flexible design, the BioCapture system opens up a whole new realm of laboratory opportunities.

System Specifications

Transmission Range: 100 feet line of sight (approx.)*

RF Band: 2.4-2.484 GHz ISM Band

User Unit

Dimensions: 5.25"x 2.5" x 1.1"
(not including antenna)

Weight: 210 grams (7.4 oz.)
with batteries

Number of Input Channels: *8 configurable channels
(external sensors)
*4 embedded channels:
accelerometry, pulse oximetry, pressure based airflow and DC auxiliary input

Power: 2 AA alkaline batteries,
10 hours use



* Transmission distance varies based on the building architecture.

This device is intended for scientific and research purposes only. IRB approval must be obtained before using this device in human testing.

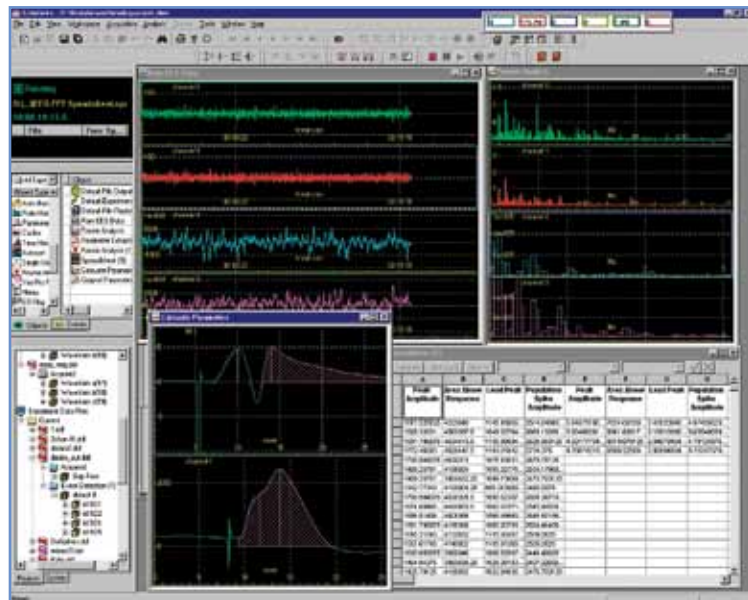
BioCapture is a trademark and BioRadio is a registered trademark of Great Lakes NeuroTech, Cleveland OH.

SciWorks is a trademark of DataWave Technologies®.

Acknowledgments: This work utilizes technologies supported by Small Business Innovation Research grants from the National Institutes of Health (NINDS, NHLBI, NIMH) and the Department of Defense.

Software

Great Lakes NeuroTech has partnered with DataWave Technologies®, the recognized leader in data acquisition and analysis software, to provide the advanced software package, SciWorks™ CM for BioCapture Pro. The SciWorks CM software package provides sophisticated data acquisition, experiment control, data analysis and data management, without the need for any additional programming.



Experiment Design

Easily create customized experiments. The most simple to the most complex data acquisition and analysis experiments are created in only a few simple steps.

Real-Time and Post Experiment Data Analysis

Get both real-time and post experiment data analysis with an extensive and interactive analysis toolbox for analyzing and processing data.

Data Management

Data files, as well as other files, are easily managed using the unique workspace and project oriented environment. The workspace and project environment provide great flexibility and ease of use when working with large data files and unique

data types. The graphical view of data files lets you get to the data you need for easy selection and management and for further analysis and processing.

Additional Analysis Capabilities:

Data Export Capability

Data can be exported to ASCII format for further analysis in other software packages such as National Instruments LabVIEW™, MathWorks MATLAB® or Microsoft Excel®.

Software Development Kit

The BioCapture Pro system comes with a Software Development Kit that includes real-time LabVIEW and MATLAB drivers, which allow flexibility in designing custom software around the BioRadio 150.