

- Oocyte and epithelial voltage clamp applications
- Electrophysiology
- Cardiac Function
- Hemodynamics
- Isolated tissue and organ studies
- Exercise physiology research
- Metabolic function studies



The RA-834 Recorder is the most advanced and feature-rich physiological data acquisition system on the market. It comes standard with 8 general purpose input channels, a low voltage and high voltage stimulator, 8 digital outputs, a built-in barometric pressure sensor and 4 iWire™ inputs. The RA-834 exhibits the high resolution, low noise and flexibility required for a variety of research applications.

Recorder Features:

Built-in Barometric Sensor –allows for real-time compensation to pressure measurements due to changes in atmospheric pressure

Versatile – record multiple signals simultaneously (i.e. heart rate, respiration and pulse oximetry)

Built-in Stimulators – built-in, software controlled low and high voltage stimulators for both human and animal experiments with a wide array of preset stimulation protocols

Longer Life Cycle – iWire digital design accommodates future lab technologies

Plug and Play Expandable

The RA-834 includes a proprietary Serial Interface technology called iWire. iWire devices enable unparalleled expansion of your laboratory recording equipment by simply plugging in an iWire compatible device. Need to add 4 EMG channels to your protocol? No problem, simply plug in an IX-BIO4 iWire device. Need to record 12 leads of ECG? Simply plug in an iWire compatible 12-lead ECG device into one of the iWire inputs. A traditional data recorder would require 12 additional recording channels to accomplish this.

Current iWire devices include:

IX-B3G – 3 biopotential channels, plus 1 GSR channel

IX-BIO4 – 4 biopotential channels

IX-BIO8 – 8 biopotential channels

IX-ECG12 – 12 Lead ECG

Software

Versatile, Yet Easy-to-Use Software for Even the Most Advanced Analyses

LabScribe software is a powerful recording and analysis package that features an intuitive, user-friendly interface for setting up acquisition screens, calibrating signals, and analyzing data. Up to 128 channels of data can be displayed simultaneously at sampling rates as high as 100,000 samples/second.

Specific analysis modules for cardiovascular research are available to analyze pressure signals, blood flow data, ECG recordings, ventricular pressure-volume loops and sonomicrometry dimension data.

Software Features

Intuitive Interface – LabScribe software display data through a customizable, user-friendly interface.

Real-Time Calculations – Monitor and observe functional parameters with an array of real-time calculations and user-defined computed channels.

Data Reduction – Analyze and reduce data and average and write selections of data to the built-in journal or directly to a text file.

Real-Time Annotations – Mark data during an experiment with freeform text notes.

Advanced Analysis – AutoMark specific time points and features of a signal for further analysis and validation.

XY Window – Any two channels can be displayed in XY format, online or offline.

FFT Analysis – LabScribe includes a Fast Fourier Transform feature for frequency analysis of any signal

Specifications

BNC INPUTS (A1-A4)

Number of inputs	4
Input range	±10 VDC
Resolution	16 bit
Connector	

DIN8 TRANSDUCER INPUTS (A5-A8)

Number of inputs	4
Input range	±10 VDC
Resolution	16 bit
Isolation	No
Excitation	"±5 VDC, 100 mA"
Connectors	DIN8
Gain	Programmable with input resistor

HIGH VOLTAGE STIMULATOR OUTPUT

Connectors	HV Safety
Output range	0-1 mA
Compliance	100 V
Max ON time	10 ms

LOW VOLTAGE STIMULATOR OUTPUTS (S1 and S2)

Resolution	16 bit
Connectors	BNC
Output range	±15 VDC at 35 mA
Modes	"Pulse, Train, Constant, Step, Ramp, Triangle, Custom"

DIGITAL INPUTS and OUTPUTS

Input	"8 independent lines, TTL input, 1 Megohm input impedance, 5 V maximum"
Output	"8 independent lines, TTL output level, 24 mA maximum load per line"

A/D CONVERTER

Sampling speed	200k Hz aggregate
Interface	"USB 1.1, 2.0, full speed"

GENERAL

Power	"12 VDC, 1.5 A"
Enclosure and Dimensions	"Plastic; 23 cm W, 15 cm D, 6.5 cm H"
Warranty	3 years
Software	LabScribe recording and analysis software

Ordering Information

Cat. No.	Model	Product
64-2326	IX-RA-834	8 Channel Data Recorder