

Case Study

Seiko Instruments and Biodynamics

A Healthy Partnership



Challenge

Seattle, Wa.-based Biodynamics Corporation is a leading provider of healthcare solutions for body composition analysis. The company offers products, protocols, training, and tools for the assessment of fluid and tissue compartments in the human body using bioimpedance analysis technology. In bioimpedance analysis, a normal distribution of tissue and fluid in the body is associated with immunity, high functionality, and longevity. The BIA 450 and BIA 310 capture impedance and reactance data by passing a radio frequency current between pads placed on an individual's wrist and ankle. And through regression analysis, these units calculate a wealth of patient information, including body mass, body water, and basal metabolism. While extremely insightful when reported accurately, a bioimpedance report and diagnosis is only as good as the tools used in the capture and reporting processes.

In designing the BIA 450 and 310 units, the Biodynamics team sought a highly reliable, low maintenance, and low power printing solution, with a mechanical orientation that was suitable for this for mobile, embedded application.

Solution

Direct thermal was immediately favored over other printing technologies, because unlike other protocols, it does not require the operator to replace printing ribbons, helping reduce overall operating costs. And, Seiko Instruments direct thermal print mechanisms were chosen based on the ability to satisfy the selection criteria outlined for this application, including the reliability, electrical, and mechanical requirements. Printed records, provided by the embedded Seiko Instruments printers, are now used for practitioner analysis and

patient records, documenting a range of factors related to obesity, geriatrics, lifestyle assessment and nutritional counseling.



"Our choice for direct thermal printers is Seiko Instruments – one of the most reputable suppliers of this class of device. Using the Seiko Instruments print mechanism has been a highly successful choice. With an average life span of 10 years or more, our analyzers experience extremely low failure rates due to printer problems – a real plus for both our customers and ourselves."

Wade Anderson
quality assessment engineer, Biodynamics