

ACCURATE MONITORING OF SELF TREATING PATIENTS

Ergometrix, Inc. & Poliac Research, Inc.

Ergometrix is a leading manufacturer of exercise bikes used for physical therapy. **Poliac Research** is a custom software and hardware development company specializing in embedded systems and programming for the Medical, Communications and Industrial Controls industries.



Patient Monitoring

In this era of short staffing and patients' rights, the physiologist needs to be able to monitor a patient's progress when a patient works out on his or her own. Ergometrix worked with Poliac Research to design a product that addressed the following goals:

- ✓ Extend effectiveness of therapists by helping them supervise the treatment of patients who work out on their own
- ✓ Provide a reliable record of each patient's progress
- ✓ Assure that the exercise treatment is being performed as prescribed

The Solution is Key

Poliac Research found a solution with Datakey Electronics' 4Kb serial memory Key to collect performance data electronically. Information recorded on the Key includes measurements of the patient's heart rate, and the "rate of perceived exertion." Each Key can hold personalized data from 5-10 physical therapy sessions, letting the therapist track each patient's



progress and perform trend analysis. "The Datakey Electronics device really helps 'close the loop' between asking someone to work and seeing what they actually do," says Charlie Steaderman, Senior Design Engineer, Poliac. "The ruggedness of the device is really important, because it can be used in the very non-controlled environment of a gym. The other factor is the proprietary nature of the key. It's not something someone can just go out and buy anywhere. So, it helps our company retain control of the design."

Fully-Engineered

The Key inserts into a high-cycle (200,000 insertions minimum) mating Keyceptacle®. Datakey Electronics' KC4210PCB Keyceptacle provides intuitive operation, positive Key retention and an ergonomic "click" into position to offer tactile confirmation when a Key is inserted and turned. There is also a LOFO contact that may be used to protect the host bus by ensuring the Key has made secure contact with the Receptacle before any signals are transmitted.



They Chose Datakey Electronics

Ergometrix and Poliac chose the Datakey Electronics' Key because it offered significant competitive advantages to their product:

- ✓ Increased Efficiency: supervise the treatment of more patients.
- ✓ More Reliable Tracking: see exactly what patients did on the equipment and how their treatment is progressing.
- ✓ Higher Quality Care: close monitoring can tell whether a prescription is performing as desired and to make mid-course corrections.

The Key was the ideal choice because it can stand up to the rugged exercise equipment environment and has been proven to reliably store and transfer data.



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