



The Key to Reducing Tension Calibration Uploads and Data Logging

Southwest Products

Southwest Products of Utah, and Recreational Software, Inc. of Arizona, joined forces to create the Load-Force 250—the world's first calibrated neck tension and recoil meter for shooters. Until now, measuring recoil required expensive lab equipment. Further, the typical stationery test method employed by most labs produces measurements that are not reflective of the actual recoil “felt” by a shooter.

Measuring the Proper Force

For experienced shooters, consistent neck tension is critical to achieving extreme accuracy. Mechanical and electronic devices to measure neck tension have been offered before but they were incapable of measuring the proper forces. Even worse, the numbers these devices captured were not calibrated to a standard measure and were not linear (a reading of 100 was not twice the force of 50). Southwest Products had specific objectives in mind when developing the LoadForce-250:

- eliminate the need for expensive lab equipment
- capture actual peak force felt by the shooter’s shoulder
- capture entire recoil force curve
- make it easy for shooters to calibrate the sensor and transfer the data to a PC

The Solution is KEY

The LoadForce-250 meter contains a programmed microprocessor to analyze and display data on a 4 line LCD display. Southwest Products needed a way to calibrate that system for each individual sensor. Datakey Electronics

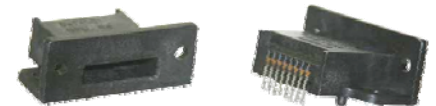


Rifle set up for making recoil measurements.

provided them an off-the shelf solution that could accomplish just that. A “hardware key” (the DKE IST4000 Token) contains the calibration information for each sensor. When this information is transferred to the LoadForce-250 meter it ensures measurements are fully linear and accurate (from 0 to 250 pounds of force). Datakey Electronics offered them an easy and reliable way to transfer the calibration information and the Token is guaranteed to survive in this tough environment.

Fully Engineered

The IST Token inserts into a high-cycle (50,000 insertions/removals minimum)



mating Receptacle. Datakey Electronics’ SR4210PCB Receptacle was small enough to design into the LoadForce-250 meter. It offers a detent mechanism that gives the user tactile confirmation when an inserted Token is physically engaged, as well as a LOFO contact that may be used to protect the host bus by ensuring that Token has made secure contact with the Receptacle before any signals are transmitted.

Over, please...





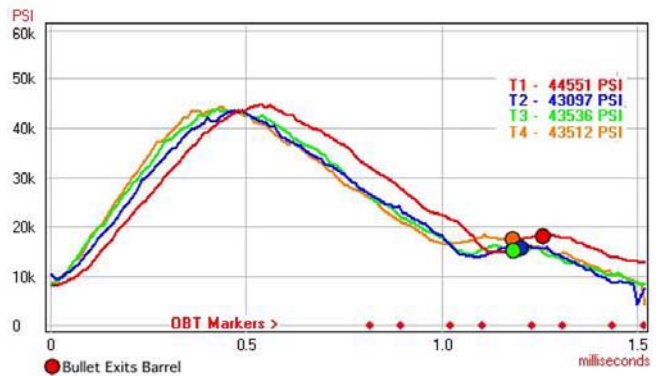
Southwest Products, cont.

They Chose Datakey Electronics

By choosing Datakey Electronics, Southwest Products was able to procure a proven, off-the-shelf product that enhanced their system by providing a way to easily upload calibration information and download data results. Additional features that make the Token well-suited for this application are its ruggedness and ability to tolerate the harsh shooting environments.



Cartridges sorted by seating force



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