



## Reliability Testing

### WHAT IS RELIABILITY TESTING?

Reliability test programs reduce product failures in the field, determine the expected life cycle of a product, or screen for failures in production units. Improved product reliability means less downtime for your customer and will give you a competitive edge with a potential gain in market share. Westpak has the experience and knowledge to provide reliability testing of your product.

### RELIABILITY SERVICES

#### Thermal Shock Testing

Rapid temperature changes will thermally stress products to propagate any weaknesses as a result of inconsistencies in production. Many failure modes can be found by thermally stressing the product through a wide temperature range.

#### Margin Testing

An overbuilt product may have room for material reduction whereas a product with a design weakness may need to be improved. Margin testing stresses the product above and beyond the required test specification.

#### Screening of Products

Some customers require 100% screening of production units to ensure the quality of the product. Typically, products will be thermally shocked or subjected to high intensity vibration.

#### Scuff Testing

The durability of painted, enameled, or polished surfaces to resist abrasion can be simulated by conducting a scuff test. This can simulate either the effects of either human use or continuous contact with other surfaces.

#### Button Cycling

Simulates the repetitive use of buttons or switches on Bezels, PDA's, or other product designs where greater than 100,000 cycles are anticipated.

#### Insertion and Removal Force

In addition to cycling the product, insertion and removal force can also be measured. Our software controlled load frames can be programmed to measure the force through an entire cycle.

#### Protocol Development

We can develop a reliability plan to meet your testing requirements. We can combine the most severe test inputs into one complete test which meet the requirements of several different specifications.

#### Customized Test Machines

We have created custom test equipment that is often focused on material or design comparison. Past tests machines have been designed to test a cable/connector interface, cable pulling, living hinges, and keystroke cycles.



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