

# MODEL 1651

## Battery Element Tester



### Description and Key Features

- *“Solid State” Design Eliminates Costly Tubes and Analog Meters*
- *Meets Go, No-Go Production Line/Quality Control Testing Requirements*
- *Safe, Efficient, Easy-To-Use Retracting Safety Probes for Applying High Voltage*
- *Lockout Feature Shuts Off High Voltage if Product Fails*
- *Panel Meter Reads Actual High Voltage Output*

**APPLICATION:** If a conventional AC Dielectric tester is used on moist cells, a rather high powered unit is required. That creates a problem of producing excessive heat within the separators. For this reason, the Slaughter Company developed the Pulse/Surge line of test equipment. With this technique, high current pulses of a very short duration are created. Though instantaneous energy in each pulse is high, the short duration of pulses result in a low average energy level; thereby avoiding the problem of a high powered tester, and the problem of producing excessive heat. The Pulse/Surge equipment specifically designed for this application is available in a peak voltage rating of 400/3,000. We should note too, that these Pulse/Surge testers are equally effective on dry charged elements. You will find these give a good resolution of defective separators without false rejects due to moisture in damp process plates.

**DESCRIPTION:** Output voltage is adjustable and is indicated on a digital peak reading voltmeter. This output is not of a sinusoidal waveform of the type provided by leakage current type testers which have previously been used for testing dry charged cells.

Instead, the equipment produces high voltage, high current pulses of very short time duration. These pulses repeat at the rate of 60 pulses per second on a 60 Hz power source or 50 pulses per second on a 50 Hz power source.

Though the duration of each pulse is approximately 10 micro-seconds, the pulses result in a low average energy level. Thus, the high voltage stress required to obtain a good test is produced without the problem of providing a high-powered tester and the problem of producing excessive heat within the test object.

The digital quality meter indicates in arbitrary units, on a scale of 0 to +/- 1000. An adjustable reject and an associated balance control along with a check push-button set the instrument up properly.

### Applications

Automotive Batteries

Industrial Batteries

Most Batteries with  
Separators

Available Models

Manual Benchtop

Automatic Line

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### *SPECIFICATIONS*

<b>Input Voltage</b>	110/220 volts +/- 15%, 50/60 Hz
<b>Output Voltage</b>	Rating = 400 – 3000 Volts Peak
<b>Min Acceptable Cell Res. Range</b>	100 or 250 Ohms
<b>Terminations</b>	2 High Voltage (Alden) Sockets
<b>Dimensions</b>	(WxHxD) 16 x 5 x 13.5 in.
<b>Weight</b>	Weight: 23 lbs.



### *FEATURE*

### *BENEFIT*

Check Button	The Check Button is used to verify that the reject circuitry is operating normally
Trip Level and Balance Adjustments	Adjustable settings allow for testing a wide range of products
Voltage Meter	The digital voltage meter displays actual peak test voltage.
Quality Meter	The digital quality meter displays the proof of the test
Sensitivity Switch	Select 100 or 250 Ohm Load
On-Off Power Switch	Lighted when unit is energized
Voltage Control Knob	Adjusts test voltage continuously over full range.
Lockout w/Auto Reset	Lockout feature shuts off the high voltage if the product fails. Unit auto resets after reject and is ready for the next test.
Solid State	Solid State design lowers maintenance by eliminating costly tubes and analog meters.
Detachable Test Probes	These probes feature retracting ends to maximize safety, and are detachable for easy replacement
Bell	Audible failure indicator can be heard over factory noise.