

Igniter Circuit Testers

101-SQB-PTU



101-SQB-PTU Igniter Circuit Tester

Description

Igniter Circuit Testers are ohmmeters that measure the resistance of electro-explosive circuits such as rocket igniters, explosive bolts, squibs, and blasting caps using a test current that is as much as 1,000 times less than a conventional precision low resistance ohmmeter.

Designed for testing squibs and other electrically detonated ordnance, Raptor Scientific's 101-SQB-PTU squib tester can test diodes and measure resistances with great accuracy while dramatically reducing the risks of accidental detonations because of its built-in fail-safe modules.

Design Features

Our 101-SQB-PTU squib tester is a portable stand-alone unit with built-in NiMH battery.

- 8-hour operation on a single charge.
- Charger automatically switches to maintenance mode once battery is fully charged.
- Battery pack is fused to protect against overcurrent.
- Tester automatically turns off after 5 minutes of inactivity to conserve battery life.

- Connector design prevents circuit testing and battery charging at the same time.

- Ruggedized IP65 case protects against dust and liquid intrusion.

Safety Features

- Fail-safe module limits test current. Since excessive test current could cause bodily injury or death, protection for all modes of failure or operator error is built into the squib tester. A sealed, tamperproof, fail-safe module guarantees that the test current will be under 10 mA even in the worst case conditions of simultaneous failure of multiple circuit elements.

- Standard fiber-optic interface with IP65 cover ensures safe meter integration and physical separation between the computer's power system and the squib.

Ease of Use

- Direct reading. 4-wire test leads arrangement automatically compensates for lead resistance.

- Quick Reading. Squib tester stabilizes readings in less than 2 seconds. Readout is a large format LCD display with clear indication of measurement range and units, battery level, and calibration status.

- Digitally calibrated. Calibration of the squib tester is performed digitally, with no requirement to open the meter or trim internal or external potentiometers.

Key Benefits

- Detect missing or broken wires in the 4 wire test leads to the UUT. Diagnose and locate wiring errors that other testers would show as a resistance or open circuit reading.

- Immune to differences in lead resistances. Our squib testers are specifically designed to withstand unequal lead resistances on the 4 wire cable lines.

Technical Specifications

Range	Full Scale	Resolution	Accuracy (full scale)
20 Ω	20 Ω	0.001 Ω	0.05%
200 Ω	200 Ω	0.01 Ω	0.025%
2 k Ω	2 k Ω	0.1 Ω	0.025%
20 k Ω	20 k Ω	1 Ω	0.05%
200 k Ω	200 k Ω	10 Ω	0.5%
2 M Ω	2 M Ω	100 Ω	1.0%
DIODE	1.0 VDC	0.001 VDC	0.5%

Alternate ranges and diode testing are available. Calibration standards can be provided upon request. Additional options are available.