

# Igniter Circuit Testers

101-5HJ-NAV



## 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 which is as much as 1000 times less than a conventional precision low resistance ohmmeter. These instruments have been

approved by the US Navy for measurement of munitions and rocket motor igniters.

## Fail-Safe Concept

Since excessive test current could cause bodily injury or death, protection for all modes of failure or operator error must be built into the tester. In our instruments, a sealed, tamperproof, fail-safe module guarantees that the test current will be less than 10 mA even under worst case conditions of simultaneous failure of multiple circuit elements.

To prevent anyone from bypassing the critical fail-safe circuitry, it is sealed in a potted module attached directly to the output connector. This module will continue to limit test current even if the instrument is dropped on a concrete surface from a height of 100 ft.

## More Safety Features

The AC charger must be unplugged in order to connect the test leads, making it impossible for a test to be run

with the AC still connected.

We use a special re-chargeable nickel metal hydride battery pack which is totally sealed in a thick plastic case to guard against leakage and has an output connector which does not match any off-the-shelf battery of higher voltage. A fuse inside the case protects the instrument in the event of a short circuit.

## Ease of Operation

Our instruments give a direct reading with no bridge to balance. The 4-wire test leads, which automatically compensate for lead resistance, are attached to the igniter circuit and the appropriate range button is depressed. The digital LCD readout then displays resistance. A milliampmeter and three built-in precision resistors permit verification of test current and accuracy.

## Portability

These testers are housed in a small "military" type case with a carrying handle and space for storage of test leads.

## Technical Specifications

**Models:** 101-5HJ-NAV: Military approved. This is our basic tester.  
101-5HJ-NAVR: Rack mount version of our basic tester.  
101-5HJ-NAV-3: Lower cost version. No mA meter and reduced accuracy.

Range (Ohm)	Resolution (Ohm)	Accuracy (Ohm)	Accuracy (Ohm) -3 version
19.999	0.001	0.01	0.03
199.99	0.01	0.05	0.1
1999.9	0.1	0.5	1
199.99K	0.01K	1.0K	2.0K

Alternate ranges are available. Additional options and more versions of our testers are available.