



A13-16 SHOCK LEVEL TESTER



The A13-16 Shock Level Tester allows for verification of the shock output of a shock source. This unit requires a Volt Meter and/or Oscilloscope (not included). The input jack connects to alligator clips (included) that can easily be attached to either subject electrodes or the grids of the shock floor.

This unit provides two output options for verification. The first is a rectified DC output that can be used with any standard volt meter. This output will be consistent with Ohms Law, V (volts) = I (amps) * R (ohms), where the internal resistance load used is 10 kilohms. Because this output circuit contains diodes and filtering, the voltmeter output will be slightly lower than predicted. A table of expected output voltages with given input currents is provided below.

In order to meet the requirements of more rigorous verification, the second output provided is for connection to an oscilloscope. This output will follow ohms law precisely. The maximum amplitude of the output pulse will be exactly equal to Ohms Law.

Using the Tester

Connect the alligator clip cable assembly from the center jack on the A13-16 Shock Level Tester to each electrode output or to separate grids on a floor (in multi-pole scrambled applications). Set your Voltmeter to read DC Volts and plug the Red probe in the jack labeled Voltmeter "+" and plug the Black probe in the jack labeled Voltmeter "-". Connect your oscilloscope ground to the terminal labeled Oscilloscope "-" and connect the oscilloscope probe to the terminal labeled Oscilloscope "+". Either or both of the measurement techniques can be used. Verify that all shock cables from shocker to the subject are made properly. Place the shocker in the Set/Test position and set it to range Man'L/LO. Adjust the Set Shock knob until the current reads .5 mA, reading the top scale. Flip the Set/Test switch to the Subject position and press the operate switch down. Verify that the output voltage is consistent with the table provided. PLEASE NOTE: When testing the output at a 8-pole shock floor every 9th grid rod are connected (grid 1 and 9, 2 and 10, 3 and 11, etc... so the output voltage should be near zero.

Set Current (mA)	Expected Volt Meter Value (V)
0.5	4-5
1	9-10
2	18-19
3	28-29
5	50-51