NEON WAND

MODEL N-146

The Neon Wand is a glass tube filled with neon gas and fitted with conventional neon sign electrodes at either end. It is used for demonstrational purposes with a Van de Graaff Electrostatic Generator (WINSCO Model N-100V) to show that enough current can be conducted through the air and the body of a person to light the tube.

To use, hold the tube by the foam rubber handle and point the other end at the Generator dome. By adding the small piece of foam cushioning at the end of the tube, the electrodes are "hidden" from the electric field and so do not conduct continuously. Instead, the high voltage arcs through the foam in bursts whose frequency increases as the Neon Wand gets closer to the dome, causing a perceived higher light output than if the current were continuous. You will have to bring the end fairly close to the dome to get maximum conduction. When operated in this manner, the user will not feel anything as the current involved is so minute. The central portion of the glass tubing is necked down to a small diameter to increase the current density in the neon gas. By current density, we mean the amount of current per cross-section of gas. Increasing this value gives more light.

The electrodes are absolutely necessary to provide a low resistance path for the current to enter the tube and flow through the gas. Without these electrode wires, the extreme high voltage will tunnel right through the glass, which will allow air to enter the tube and destroy its usefulness.

Please refer to our printed instructions included with the WINSCO N-100V Van de Graaff Electrostatic Generator for descriptions of additional demonstrations. Or, WINSCO now offers a DVD (catalog N-158) featuring video demonstrations and descriptions of our full line of N-100V Van de Graaff Generator accessories. This DVD, as well as the full line of all WINSCO products, may be purchased directly from WINSCO via phone or fax, or through our website at www.winsco.com.

Wabash Instrument Corporation 300 Olive St., Wabash, IN 46992 Tel: 260.563.8406 www.winsco.com
For more information, please contact us: info@winsco.com