Types of Static Dischargers

DAYTON-GRANGER
ANTENNAS, ELECTROSTATICS AND LIGHTNING PROTECTION

Excellence in Aerospace since 1943

MICROPOINT

Micropoint static dischargers offer a controlled path to bleed off accumulated charge and attenuate the resultant broadband radio frequency noise by approximately 40 db, as compared to discharge from aircraft without static wicks.

The Micropoint discharger obtains its unique noise quieting ability from a goup of micro-miniature, anti-magnetic, stainless steel, four-micron diameter wires. The smaller the discharger point, the higher the electrostatic field stress will be at the discharge point, resulting in corona onset at a lower potential.

NULLFIELD

Nullfield static dischargers dissipate static electric charge in the following three ways:

1. By reduction of the voltage level required to initiate corona discharge (intensity reduction).
2. By causing the discharge to take place at right angles to antenna fields (orthogonal coupling).
3. By creating regions of practically zero RF field strength (nullfield) and causing the discharge to take place in these regions (reciprocal field decoupling).

Ortho decoupled or nullfield dischargers consists of a high impedance rod with tungsten pins protruding through the rod in a plane that will provide a high degree of decoupling between the static discharger E-field radiation and the antennas. The sharp points of the discharger, projecting at right angles to the body of the discharger, further concentrate the static field so that the discharge occurs from these points. The discharge is caused to occur in a region where the antenna field is nearly zero and with little coupling to the antenna.

Dayton-Granger, Inc. | 3299 SW 9th Avenue | Fort Lauderdale, FL 33315 | Tel. (954) 463-3451 | Email: sales@daytongranger.com | www.daytongranger.com

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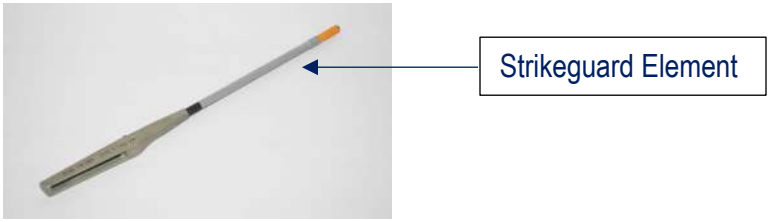
NULL-PLUS

Null-Plus dischargers are carbon point static dischargers designed for all types of aircraft traveling over 200 knots. This discharger model is the most effective device available for providing optimum noise quieting at the VLF frequencies. Null-Plus dischargers weigh less and are aerodynamically designed to lessen drag.The typical noise reduction is over 60 dB.

NULL-STRIKE



Null-Strike static dischargers feature exclusive lightning protection capability. They consist of “Strikeguard”, finely deposited aluminum particles epoxied on the surface of the discharger with an extremely strong adhesive. The Strikeguard element is used as a means of diverting a lightning strike to the tip of the discharger rather than the edge of a wing in order to minimize damage to the airframe.

Many other options are also available such as Supersonic, Composite, Nylo-Wick as well as Stainless Steel Shanks

Dayton Granger offers a free service for determining the minimum and recommended number and locations of static dischargers. Detailed installation prints are available from Dayton-Granger, Inc. for most in service aircraft.

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