615-3165 (10-620) Lightning Leaper™

For use with a Van de Graaff Generator

Warranty and parts:

We replace all defective or missing parts free of charge. Additional replacement parts may be ordered toll-free. We accept MasterCard, Visa, checks and School P.O.s. All products warranted to be free from defect for 90 days. Does not apply to accident, misuse or normal wear and tear. Intended for children 13 years of age and up. This item is not a toy. It may contain small parts that can be choking hazards. Adult supervision is required.

Description:

This insulating plate has two binding clips with banana plugs on either end for connecting to a Van de Graaff generator, Wimshurst machine or Tesla Coil. On the plate's surface, an incomplete metallic path - with eight small gaps - is drawn in a zig zag pattern. The discharge from the Van de Graaff generator follows this zig zag path even though it obviously is *not* the shortest distance between the binding clips.

The path taken by the static electricity is visible since there are sparks at each gap in the metal path.

Safety:

Do not use this plate with any other source of electricity except discharge from a Van de Graaff generator, Wimshurst machine or Tesla Coil.

How to use:

1. Hang the Lightning Leaper™ on an insulating stand using one of the included binding posts. This grounds the unit.
2. Connect the plate to your Van de Graaff generator, Wimshurst machine or Tesla Coil using the second binding post.
3. Turn on the Van de Graaff generator or Wimshurst machine. You will see high-voltage electricity jumping across the gaps in the plate in the form of sparks.
4. If you prefer, you can hold the plate in your hand and slowly approach an active Van de Graaff generator or Tesla Coil. **(Caution! For safety reasons, do not do this with the Wimshurst machine.)**
5. Effect is heightened if operated in a darkened room.

Points to note:

The sparks always follow the path of least resistance.

Spark brightness is uniform for all gap widths.

The total of all the spark gaps is about 1.1 inches (2.8mm) and will require at least 25,000 to 30,000 volts.

Van de Graaff products:

615-3115 and 615-3135 Discharge Wand - In two sizes for Science First® 615-3100 and 615-3130 Van de Graaffs, respectively. With cast metal tripod base and 7" diameter oblate. Used to draw a discharge.

615-3160 Static Spinner - Like a pinwheel, this device will spin when close to a Van de Graaff generator due to the effect of electric wind.

615-3155 Volta's Hailstorm - The tiny polystyrene balls inside this transparent cage will bounce wildly near a Van de Graaff generator. Cage is 12" high and can be seen from a distance.

615-3100 Small Van de Graaff - With 200,000 volt potential. Ideal for schools. Raise hair instantly - no shock hazard. Sparks up to 5" and operates in humidities up to 90%. 7" diameter aluminum globe.

615-3130 Large Van de Graaff - With 400,000 volt potential, an amazing machine. Clear butyrate column affords full view of circling neoprene belt. Detailed instructions with experiments, 12.5" diameter stainless steel globe.

P/N 24-0620