



P.O. Box 554, Portland, OR; 97207  
503-292-8682 (Phone) 800-722-8078 503-292-8697 (Fax)  
info@pr-tech.com sales@pr-tech.com

---

---

## APPLICATION- LIGHTED MARKERS

Neon gas filled glass tubes can light up if one end of the tube is tied to the energized power line and the other end is tied to enough conducting surface so that there is a capacitive effect to ground, thereby causing enough current to flow through the neon, lighting it up to the FAA standard for catenary lighting of 32.5 candella.

Our original lighted marker, the SEARCHLIGHT, consisted of an international orange spherical power line marker with four circular neon lights on the outside of the marker so it could be seen from all angles. The SpanLIGHT was improved to the PowerLITE because the neon tubes on the outside of the marker were difficult and expensive to protect from hail etc.

A French Company has been producing neon catenary lights for years. Their standard candela is 10 candella, so they do not meet FAA standards. P&R introduced the PowerLITE neon catenary light with an improved neon coil to meet FAA standards of 32.5 candella.

The PowerLITE operates from the electric field of the energized line, 69KV to 500 KV. The PowerLITE emits a steady red light, on 24 hours per day. The P&R design is simplest and least expensive at 230KV-500KV, as shown on the Bulletin, because of the FieldCON construction. At lower voltages, all the way down to 69KV, the capacitance area required increases rapidly, up to four cables 90 feet long, and therefore the price increases. The two designs are shown on following pages.

P&R also introduced the SpanFLASH, a spherical marker with zenon flash tubes which flash white flashes every two to four seconds. The SpanFLASH operates off the magnetic field of the current of the energized line, and the line must have at least 50 amperes flowing in the energized line. Since the SpanFLASH operates off of the current magnetic field, the SpanFLASH can be used on energized line of systems as low as 12KV, as long as 50 amperes are flowing. The SpanFLASH is spherical, with the bottom half international orange color and the top half clear plastic.

Our newest product is the ShieldLITE, a combination international orange spherical marker combined with LED [solid state light emitting diode] catenary lights which combination can be mounted on the shield wire of power systems, saving space and initial cost. The LED light is also long lasting, guaranteed for five years, with a life expectancy of ten years. The LED also meets the FAA light intensity of 32.5 candella, producing 70 candella originally and 35 candella after ten years.

---