

# Electro-Technic BD-20AC Corona Treater

## Electro-Technic Corona Treater



**Tool Type:** Surface treatment

**Location:** Microfluidics Lab

**Description:** High frequency generator used for surface treating of polymers

**Manufacturer:** Electro-Technic Products Inc.

## About

Corona discharge wands use a high frequency electric field to ionize the surrounding air over a very short range. In principle, their operation is similar to a tesla coil, which accumulates charge until a high enough voltage is reached to produce a spark. In this case, the spark rate is around 100-120 Hz, double the line frequency. Each spark produces a small amount of plasma (as indicated by the light produced) which creates active ions that increase the surface energy of polymers.

## Safety Concerns

**High Voltage** - Keep the electrode tip away from your body. Care should be taken to prevent the electrode from arcing to any worn metal items, such as jewelry. Since this is a very low current device, a spark will cause discomfort but not harm. However, the sudden shock could be alarming and catalyze other accidents.

**High-Temperature Plasma** - Do not operate this device near any flammable liquids or gases. The electric spark may ignite them.

**Ozone Generator** - Ozone, produced at the electrode tip, has a somewhat pungent odor but should dissipate harmlessly in a ventilated area. Do not use in confined spaces with poor ventilation.

**High Frequency (RF)** - If you wear a pacemaker or other medical electronic device, consult your physician before use.

## Operating Procedures

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## Detailed Specifications

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## Reference Documentation

[Operating Manual](#)

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