## Mitsuba Electrostatic Corona Infiniti<sup>TM</sup> Powder Spray Gun (US Patent No. 5678770)

## YOUR INSURANCE AGAINST MULTIPLIER FAILURE

Most high voltage circuits step up the voltage in 2 stages.



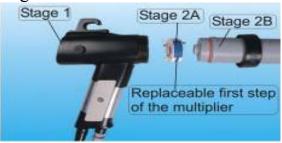
 Stage 1 – High Voltage Transformer Section

Low input voltage to the gun is stepped up by a compact transformer to about 5 - 10 KV.

■ Stage 2 – Multiplier Section

Input to this section is the 5-10 KV generated by Stage 1. This voltage is then stepped up by a multiplier circuit to about 100KV DC –ve. Most multiplier failures occur due to a spike in the input to the gun, which creates an abnormally high output from stage 1. This in turn leads to the failure of the first step in the multiplier circuit. This prevents power from going to the further parts of the multiplier circuit. Therefore the entire multiplier has failed!!!

Mitsuba Infiniti™ Powder Spray Guns-have **3** stages instead of 2.



- Stage 1 High Voltage Transformer Section Low input voltage to the gun is stepped up by a compact transformer to about 5 – 10 KV.
- Stage 2a Power Cartridge Section

  First Step of the multiplier section is made replaceable. If a spike occurs which creates an abnormally high output from stage 1 and a failure occurs in first step of the multiplier, it can be very easily and inexpensively replaced. This is your insurance against multiplier failures.
- Stage 2b Multiplier Section
   Balance multiplier circuit to generate 100KV DC
   -ve.

In Mitsuba Guns - in the unlikely event of malfunction, all you need to do is .....



...simply pull out the barrel



Replace the power cartridge



Tighten the nut