instruction manual

Non-contact electrification device

 $\underline{\text{Model: } E \ L \ C - 0 \ 1 \ N}$ 



Element Co., Ltd.

5-13-3Onodai,Minami-ku,Sagamihara shi, KanagawaPrefecture,252-0331 Tel 042-786-5063 Fax 042-786-5065 Website: http://www.kocho.jp Precautions for use when using this product, be sure to refer to the instruction manual for your safety. Please observe the following notes.

1. This product is intended for general electronic equipment. This product Medical equipment and transportation equipment whose damage may affect the human body and facilities Please do not use in applications such as or in environments subject to vibration. Please contact us when using other than general electronic equipment.

2. This product is equipped with an overcurrent and short circuit protection circuit, Avoid using a short circuit state, as it may cause a failure.

3. Do not use this product under nonstandard electrical and environmental conditions. It may break down under excessive input voltage or high temperature.

4. Avoid using this product in a place with much dust or where corrosive gas is generated.

5. This product generates high voltage. Do not touch the high voltage output directly. Touching may cause electric shock, injury or death.

6. When touching this product, shut off the input power and leave it for a sufficient time.  $\overleftarrow{c}$  Make sure that the high voltage accumulated inside is discharged and touch it.

7. This product sucks dust and dust. Sufficient creepage distance when used Use with consideration for insulation distance, wiring treatment, etc.

8. If a failure or abnormality occurs during use, immediately shut off the input and start operation. Please stop and contact us.

9. This product is a power supply designed and manufactured for equipment integration, equipment and research. Be sure to attach a warning label because high voltage is generated.

10. Since this product generates high voltage, a grounding of 3rd class or more make sure to secure the ground wire with the shortest possible wire. Please contact us if you have any problems with wiring. <Features> this non-contact electrification device is a control unit, corona electrode work stand unit it is a 2 unit configuration. The work table size is 100 x 100 mm. It is also equipped with a space heater and temperature controller for heating.

<Specification>control unit

1, high voltage power supply

- (1) Power supply for corona discharge 0 to -10.0 kV 3 mA Maximum applied voltage 0 to -9 kV <3 mA Output voltage control 1 CV Output voltage, current display digital panel meter, one switchable type one
- (2) HV ON switch and one mini toggle switch High voltage ON when ON1
- (3) kV / mA switch, mini toggle switch For switching digital panel meter display]
- (4) TIMER / THRU switch 1 mini toggle switch Electronic timer operation mode at TIMER Normal manual operation during THRU1
- (5) electronic timer For high voltage application time setting \* 120SEC setting at shipping

(6) START STOP switch push button switch 1 each With START ON, the high voltage application timer automatically ends after the set time Stopped halfway with STOP ON

(7) High voltage output section  $15 \mathrm{kV}$  connector

(8) Interlock Connect the 16P terminal block 1P2P on the rear part to the external limit switch etc. for interlock. \* Non-voltage contact input DC30V 100mA or less (A short bar is mounted at the time of shipment.)

(9) Status the rear part 16P terminal block 3P4P5P is a status signal.

Please optionally connect to an external signal tower.

\* Non-voltage contact output is performed in synchronization with the HVON switch.

(10) Temperature controller 1 unit Normal temperature to about 120 ° C

2, work stand unit

- (1) one corona electrode
- (2) one work table
- (3) one space heater

(4) one K-type thermocouple

<Advance preparation>

- 1, AC cables to the AC outlet (2A or more).
- 2, Connect a few or more ground wires to the E terminal on the rear panel of the high voltage power supply unit.
- 3, connect high-voltage connector, heater cable, etc.

4, Set the corona electrode-work table distance to the desired distance.

## <Operation procedure>

- 1. Turn on the POWER switch.
- 2. Turn on the HT switch when heating.
- 3. Set the desired temperature with the temperature controller and raise the temperature.
- 4. Set the TIMER / THRU switch to THRU side.
- 5. Turn on the HV ON switch and set the output voltage value with the CV volume.
- 6. Check the output voltage value and current value with the kV / mA switch.
- 7. If the voltage value does not rise or the current value is high, check the wiring and distance.
- 8. HVON switch OFF, TIMER / THRU switch set to TIMER side
- 9. Turn on the START switch instantly.
- 10, Corona discharge processing is performed only for the electronic timer setting time
- 11. If you want to end the process halfway, turn on the STOP switch momentarily.
- 12. When all processing is completed, turn off the HVON switch and POWER Please turn off the switch. switch K sensor (thermocouple) may not be firmly fixed to the work table There is. Check the fixing condition.